This document gives pertinent information concerning the reissuance of the Virginia Pollutant Discharge Elimination System (VPDES) Permit listed below. This permit is being processed as a Minor, Industrial permit. The discharge results from the operation of an existing 218 Mega Watt (MW) natural gas and oil fired combined cycle power station. This permit action consists of updating the proposed effluent limits to reflect the current Virginia Water Quality Standards (effective January 6, 2011) and updating permit language as appropriate. The effluent limitations and special conditions contained in this permit will maintain the Water Quality Standards (WQS) of 9VAC25-260 et seq.

1.	Facility Name and Mailing Address:	Dominion – Gordonsville Power Station 5000 Dominion Boulevard Glen Allen, VA 23060	SIC Code :	4911 - Electric Services
	Facility Location:	819 Hill Road Gordonsville, VA 22942	County:	Louisa
	Facility Contact Name:	Mr. Troy Schrank	Telephone Number:	(540) 832-3432
	Facility E-mail Address:	troy.l.schrank@dom.com		
2.	Permit No.:	VA0087033	Expiration Date of previous permit:	January 30, 2013
	Other VPDES Permits associated with this facility:		None	
	Other Permits associated with this facility:		Air Registration Number 40808 (Title V) Hazardous Waste – VA0000125211 VWP – 91-1631	
	E2/E3/E4 Status:	Not Applicable		
3.	Owner Name:	Virginia Electric and Power Company		
	Owner Contact/Title:	Mr. Jason Ericson / Environmental Specialist III	Telephone Number:	(804) 273-3485
	Owner E-mail Address:	jason.p.ericson@dom.com		
4.	Application Complete Date:	July 19, 2012		
	Permit Drafted By:	Susan Mackert	Date Drafted:	October 31, 2012
	Draft Permit Reviewed By:	Alison Thompson	Date Reviewed:	November 20, 2012
	WPM Review By:	Bryant Thomas	Date Reviewed:	December 5, 2012
	Public Comment Period :	Start Date: February 15, 2013	End Date:	March 18, 2013

5. Receiving Waters Information: See Attachment 1 for the Flow Frequency Determination*

Receiving Stream Name :	South Anna River	Stream Code:	8-SAR
Drainage Area at Outfall:	6.1 square miles*	River Mile:	100.36
Stream Basin:	York	Subbasin:	None
Section:	3	Stream Class:	III
Special Standards:	None	Waterbody ID:	VAN-F01R
7Q10 Low Flow:	0.035 MGD	7Q10 High Flow:	0.591 MGD
1Q10 Low Flow:	0.028 MGD	1Q10 High Flow:	0.452 MGD
30Q10 Low Flow:	0.085 MGD	30Q10 High Flow:	0.853 MGD
Harmonic Mean Flow:	0.639 MGD	30Q5 Flow:	0.149 MGD

*Using GIS, DEQ staff has determined the drainage area to be 5.1 square miles which is reflected within the planning statement (see Attachment 7). During the previous reissuance of the permit, Dominion determined the drainage area to be 6.1 square miles. DEQ staff has compared the flow frequency determinations for both the 5.1 and 6.1 square mile drainage areas and finds no significant difference. It is staff's best professional judgement that a drainage area of 6.1 square miles be used as it provides consistency with the previous permit and subsequent Water Effects Ratio and chemical translator study.

6. Statutory or Regulatory Basis for Special Conditions and Effluent Limitations:

✓	State Water Control Law	✓	EPA Guidelines (40 CFR Part 423)*
✓	Clean Water Act	✓	Water Quality Standards
✓	VPDES Permit Regulation		Other
✓	EPA NPDES Regulation		

*40 CFR Part 423 – Steam Electric Power Generating

7. Licensed Operator Requirements: Not Applicable

8. Reliability Class: Not Applicable

9. Permit Characterization:

✓	Private	✓	Effluent Limited		Possible Interstate Effect
	Federal	✓	Water Quality Limited		Compliance Schedule Required
	State	✓	Whole Effluent Toxicity Program Required		Interim Limits in Permit
	WTP		Pretreatment Program Required		Interim Limits in Other Document
	TMDL				

10. **Wastewater Sources and Treatment Description:**

The Dominion – Gordonsville Power Station is an existing natural gas and oil fired combined cycle power station. The facility utilizes two combined cycle combustion turbines (Units 1 and 2) generating a combined 218 MW total gross. Water needed for station operations is either withdrawn from an adjacent quarry or received from the Town of Gordonsville, with the Town's potable supply comprising the majority of water utilized. The quarry withdrawal, which utilizes an intake structure located at the quarry, is primarily for emergency and/or drought purposes.

TABLE 1 – Generation Units

Generating Unit	Fuel Source	MW Generation
Unit 1	Natural Gas	109 MW
Unit 2	Natural Gas	109 MW

See Attachment 2 for the NPDES Permit Rating Worksheet.
See Attachment 3 for a facility schematic/diagram.

TABLE 2 – Industrial Process Wastewater Outfall Description				
Outfall Number	**Discharge Sources**	**Treatment**	**Average Flow**	**Latitude and Longitude[1]**
001	Retention Basin*	Mixing, Sedimentation, Dechlorination, Neutralization, Algae and Hardness Control	0.049 MGD	38° 07′ 27″ N 78° 12′ 13″ W
	*Sources include Internal Outfall 101, Internal Outfall 103, Internal Outfall 104, and plant perimeter water drains.			
101 (Internal)	Boiler Blowdown*	None	0.018 MGD	38° 07′ 26″ N 78° 12′ 13″ W
	*Sources include Units 1 and 2 boiler blowdown tanks, steam sample cabinet, boiler feed pump vents and drains, various drains, and demineralized water.			
103 (Internal)	Unit 1 Oil-Water Separator*	Flotation, Sedimentation, Chlorination	0.015 MGD	38° 07′ 30″ N 78° 12′ 10″ W
	*Sources include Unit 1 wastewater sump, diesel fuel containment, fuel unloading area runoff, steam turbine oily water drains, combustion turbine oily water drains, silica analyzer drains, water injection skid, vacuum pump seals, boiler feed pumps, false start drains, diesel fire pump seal leakage, and drains.			
104 (Internal)	Unit 2 Oil-Water Separator*	Flotation, Sedimentation, Chlorination	0.0004 MGD	38° 07′ 27″ N 78° 12′ 09″ W
	*Sources include Unit 2 wastewater sump, steam turbine oily water drains, combustion turbine oily water drains, water injection skid, vacuum pump seals, boiler feed pumps, and false start drains.			

See Attachment 4 for (Gordonsville, DEQ #172B) topographic map.

11. Solids Treatment and Disposal Methods:

The Dominion – Gordonsville Power Station is an existing natural gas and oil fired combined cycle power station that does not treat domestic sewage and does not produce sewage sludge.

12. Discharges, Monitoring Stations, and Other Items in Vicinity of Discharge: The facilities and monitoring stations listed below either discharge to or are located within the waterbody VAN-F01R.

TABLE 3	
8-SAR101.03	DEQ ambient monitoring station located approximately 0.68 rivermiles upstream of Outfall 001 at the Route 231 bridge crossing.
VA0021105	Gordonsville STP (South Anna River, UT*)
	*UT – Unnamed Tributary
VA0088706	South Creek – Zion Crossroads (Central Branch, UT)
VA0090743	Zion Crossroads WWTP (Camp Creek Lake)
VA0091332	Old Dominion Electric Cooperative – Louisa (Happy Creek, UT)
VA0092533	Klockner Pentaplast of America (South Anna River, UT)
VAG406049	Orange Associates LLC Property (South Anna River, UT)

TABLE 3 (Continued)	
VAG406455	George Seymour Property (South Anna River, UT)
VAG406474	East End Farm (Hudson Creek, UT)
VAG406484	Heather and Carol Haney Residence (Bowles Creek, UT)
VAG406496	Elisabeth Nolting Aiken Residence (Fielding Creek, UT)
VAR050848	Klockner Pentaplast of America (South Anna River, UT)
VAR050969	Lyddan Enterprises – Gordonsville Logyard (Central Branch, UT)
The Town of Gordonsville maintains an emergency water supply intake on the quarry to the southwest of the Gordonsville Power Station. DEQ's review of public water supplies near permitted facilities includes only those intakes that are under the purview of the Virginia Department of Health (VDH) and/or those waterbodies that are designated as public water supplies in the Virginia Water Quality Standards. The emergency intake on the quarry for the Town of Gordonsville does not fall into either category. There are no public water supply intakes on the South Anna River within five miles downstream of Outfall 001.	

13. Material Storage:
Material storage information was provided as a component of the reissuance package. See Attachment 5 for a bulk chemical list and storage locations.

14. Site Inspection:
Performed by Susan Mackert on August 31, 2010. The information provided in the facility's permit reapplication package dated August 2, 2012, and received August 3, 2012, is consistent with the observations made during the 2010 site visit. As such, the facility's application is accurate and representative of actual site conditions. The site visit memo can be found as Attachment 6.

15. Receiving Stream Water Quality and Water Quality Standards:

a) Ambient Water Quality Data

This facility discharges into the South Anna River. The DEQ water monitoring station in the receiving segment of the South Anna River, 8-SAR101.03, is located approximately 0.68 miles upstream of Outfall 001, at the Route 231 bridge crossing. The following is the water quality summary for this segment of the South Anna River, as taken from the Draft 2012 Integrated Report*:

Class III, Section 3.

DEQ ambient monitoring station 8-SAR101.03, at Route 231.

E. coli monitoring finds a bacterial impairment, resulting in an impaired classification for the recreation use. A bacteria Total Maximum Daily Load (TMDL) for the South Anna River watershed has been completed and approved. The aquatic life and wildlife uses are considered fully supporting. An observed effect for the aquatic life use is noted, based on total phosphorus samples collected from 2000 to 2004. While nutrients are not assessed as there are no nutrient standards for free-flowing streams, the observed effect was noted in the 2006 Integrated Report because seven of 22 samples (31.8%) exceeded the total phosphorus screening value (0.20 mg/L) that was in place at the time. The observed effect for total phosphorus has remained in place. The fish consumption use was not assessed.

*The Draft 2012 Integrated Report (IR) has been through the public comment period and reviewed by EPA. The 2012 IR is currently being finalized and prepared for release.

The full planning statement is found as Attachment 7.

b) 303(d) Listed Stream Segments and Total Maximum Daily Loads (TMDLs)

TABLE 4 – 303(d) Impairment and TMDL Information (Receiving Stream)

Impairment Information in the Draft 2012 Integrated Report*

Waterbody Name	Impaired Use	Cause	TMDL completed	WLA**	Basis for WLA	TMDL Schedule
South Anna River	Recreation	*E. coli*	Pamunkey River Basin Bacteria 08/02/2006	None	---	N/A

TABLE 5 – 303(d) Impairment and TMDL Information (Downstream)

Impairment Information in the Draft 2012 Integrated Report*

Waterbody Name	Impaired Use	Cause	Distance From Outfall	TMDL completed	WLA**	Basis for WLA	TMDL Schedule
South Anna River	Aquatic Life	Benthic Macroinvertebrates	1.56 miles	No	---	---	2022

*Virginia's Draft 2012 Integrated Report (IR) has been through the public comment period and reviewed by EPA. The 2012 IR is currently being finalized and prepared for release.

**WLA = Wasteload Allocation

c) Receiving Stream Water Quality Criteria

Part IX of 9VAC25-260(360-550) designates classes and special standards applicable to defined Virginia river basins and sections. The receiving stream, South Anna River, is located within Section 3 of the York River Basin, and classified as a Class III water.

At all times, Class III waters must achieve a dissolved oxygen (D.O.) of 4.0 mg/L or greater, a daily average D.O. of 5.0 mg/L or greater, a temperature that does not exceed 32°C, and maintain a pH of 6.0-9.0 standard units (S.U.).

Attachment 8 details other water quality criteria applicable to the receiving stream.

Ammonia, as N:
The fresh water, aquatic life Water Quality Criteria for Ammonia are dependent on the instream and/or effluent temperature and pH. The 90th percentile temperature and pH values are used because they best represent the critical design conditions of the receiving stream. Temperature and pH data was last collected from ambient monitoring station 8-SAR101.03 in December 2008. The facility completed a streamlined Water Effects Ratio (WER) and chemical translator/hardness study in 2010 (see Section 20 of the Fact Sheet for additional information). Ambient data was collected from the South Anna River upstream of the Station at the point where the quarry access bridge crosses the South Anna River. It is staff's best professional judgement that the more recent ambient data collected in support of these studies be utilized with this reissuance.

When instream temperature and pH data are available for use, staff must also use effluent pH and temperature data to establish the ammonia water quality standard to account for mixing in receiving waters. As such, staff has reviewed pH and temperature data from Discharge Monitoring Report (DMR) form submissions for the time period of March 2008 – July 2012 (Attachment 8).

The values shown below in Table 6 were used to derive the criteria in Attachment 8.

TABLE 6 – 90th Percentile Derivations			
WER / Chemical Translator		Effluent	
pH	6.8 S.U.	pH	8.0 S.U.
Temperature	26°C	Temperature	29°C

Ammonia, as N, is not a parameter of concern due to the fact the discharge is industrial in nature. As such, there is no reasonable potential to exceed the ammonia criteria. It is staff's best professional judgment that ammonia limits need not be developed for this discharge.

Metals Criteria:
The Water Quality Criteria for some metals are dependent on the receiving stream and/or effluent hardness (expressed as mg/L calcium carbonate). As discussed above, it is staff's best professional judgement that available ambient data collected in support of the WER and chemical translator/hardness studies be utilized with this reissuance. Based on these studies, the average hardness of the receiving stream was determined to be 64 mg/L and the average hardness of the effluent from Outfall 001 was determined to be 8.5 mg/L. The hardness-dependent metals criteria in Attachment 8 are based on these values.

d) Receiving Stream Special Standards

The State Water Control Board's Water Quality Standards, River Basin Section Tables (9VAC25-260-360, 370 and 380) designates the river basins, sections, classes, and special standards for surface waters of the Commonwealth of Virginia. The receiving stream, South Anna River, is located within Section 3 of the York River Basin. This section has not been designated with any special standards.

e) Threatened or Endangered Species

The Virginia Department of Game and Inland Fisheries (DGIF) Fish and Wildlife Information System Database was searched on August 24, 2012, for records to determine if there are threatened or endangered species in the vicinity of the discharge. The following threatened or endangered species were identified within a 2 mile radius of the discharge: James Spinymussel, Peregrine Falcon, Upland Sandpiper, Loggerhead Shrike, Appalachian Grizzled Skipper, Bald Eagle, Green Floater, Atlantic Pigtoe, and Migrant Loggerhead Shrike. The limits proposed in this draft permit are protective of the Virginia Water Quality Standards and protect the threatened and endangered species found near the discharge.

The stream that the facility discharges to is within a reach identified as having an Anadromous Fish Use. It is staff's best professional judgment that the proposed limits are protective of this use.

16. Antidegradation (9VAC25-260-30):

All state surface waters are provided one of three levels of antidegradation protection. For Tier 1 or existing use protection, existing uses of the water body and the water quality to protect these uses must be maintained. Tier 2 water bodies have water quality that is better than the water quality standards. Significant lowering of the water quality of Tier 2 waters is not allowed without an evaluation of the economic and social impacts. Tier 3 water bodies are exceptional waters and are so designated by regulatory amendment. The antidegradation policy prohibits new or expanded discharges into exceptional waters.

The receiving stream has been classified as Tier 1 based on the fact the receiving water has a downstream biological impairment. Permit limits proposed have been established by determining wasteload allocations which will result in attaining and/or maintaining all water quality criteria which apply to the receiving stream, including narrative criteria. These wasteload allocations will provide for the protection and maintenance of all existing uses.

17. Effluent Screening, Wasteload Allocation, and Effluent Limitation Development:

To determine water quality-based effluent limitations for a discharge, the suitability of data must first be determined. Data is suitable for analysis if one or more representative data points is equal to or above the quantification level ("QL") and the data represent the exact pollutant being evaluated.

Next, the appropriate Water Quality Standards are determined for the pollutants in the effluent. Then, the Wasteload Allocations (WLA) are calculated. The WLA values are then compared with available effluent data to determine the need for effluent limitations. Effluent limitations are needed if the 97th percentile of the daily effluent concentration values is greater than the acute wasteload allocation or if the 97th percentile of the four-day average effluent concentration values is greater than the chronic wasteload allocation. Effluent limitations are the calculated on the most limiting WLA, the required sampling frequency, and statistical characteristics of the effluent data.

a) Effluent Screening:

The discharges from Internal Outfalls 101, 103, and 104 are covered by Federal Effluent Guidelines established in 40 CFR – Part 423. When applicable, both the water quality based limits and Federal Effluent Guideline requirements were compared for these outfalls. The most stringent limitation was used as the basis for the final limit. See Section 17.d of the Fact Sheet for additional discussion on the applicable Federal Effluent Guidelines.

Effluent data obtained from the permit application and Discharge Monitoring Report (DMR) forms from March 2008 through July 2012 has been reviewed and determined to be suitable for evaluation. The following pollutant requires a wasteload allocation analysis: Total Residual Chlorine.

b) Mixing Zones and Wasteload Allocations (WLAs):

Wasteload allocations (WLAs) are calculated for those parameters in the effluent with the reasonable potential to cause an exceedance of water quality criteria. The basic calculation for establishing a WLA is the steady state complete mix equation:

$$WLA = \frac{C_o[Q_e + (f)(Q_s)] - [(C_s)(f)(Q_s)]}{Q_e}$$

Where:
- WLA = Wasteload allocation
- C_o = In-stream water quality criteria
- Q_e = Design flow
- f = Decimal fraction of critical flow from mixing evaluation
- Q_s = Critical receiving stream flow (1Q10 for acute aquatic life criteria; 7Q10 for chronic aquatic life criteria; 30Q10 for ammonia criteria; harmonic mean for carcinogen-human health criteria; and 30Q5 for non-carcinogen human health criteria)
- C_s = Mean background concentration of parameter in the receiving stream.

The Water Quality Standards contain two distinct mixing zone requirements. The first requirement is general in nature and requires the "use of mixing zone concepts in evaluating permit limits for acute and chronic standards in 9VAC25-260-140.B". The second requirement is specific and establishes special restrictions for regulatory mixing zones "established by the Board".

The Department of Environmental Quality uses a simplified mixing model to estimate the amount of mixing of a discharge with the receiving stream within specified acute and chronic exposure periods. The simplified model contains the following assumptions and approximations:

- The effluent enters the stream from the bank, either via a pipe, channel or ditch.
- The effluent velocity isn't significantly greater (no more than 1 - 2 ft/sec greater) than the stream velocity.
- The receiving stream is much wider than its depth (width at least ten times the depth).
- Diffusive mixing in the longitudinal direction (lengthwise) is insignificant compared with advective transport (flow).
- Complete vertical mixing occurs instantaneously at the discharge point. This is assumed since the stream depth is much smaller than the stream width.
- Lateral mixing (across the width) is a linear function of distance downstream.
- The effluent is neutrally buoyant (e.g. the effluent discharge temperature and salinity are not significantly different from the stream's ambient temperature and salinity).
- Complete mix is determined as the point downstream where the variation in concentration is 20% or less across the width and depth of the stream.
- The velocity of passing and drifting organisms is assumed equal to the stream velocity.

If it is suitably demonstrated that a reasonable potential for lethality or chronic impacts within the physical mixing area doesn't exist, then the basic complete mix equation, with 100% of the applicable stream flow, is appropriate. If the mixing analysis determines there is a potential for lethality or chronic impacts within the physical mixing area, then the proportion of stream flow that has mixed with the effluent over the allowed exposure time is used in the basic complete mix equation. As such, the wasteload allocation equation is modified to account for the decimal fraction of critical flow (f).

At times the stream is comprised entirely of effluent. It is staff's best professional judgement that the instream waste concentration is 100% during critical stream flows, and that the water quality of the stream will mirror the quality of the effluent. As such, staff derived wasteload allocations where parameters are reasonably expected to be present in an effluent and where effluent data indicate the pollutant is present in the discharge above quantifiable levels. Attachment 8 details the WLA derivations.

c) Effluent Limitations and Monitoring

9VAC25-31-220.D. requires limits be imposed where a discharge has a reasonable potential to cause or contribute to an in-stream excursion of water quality criteria. Those parameters with WLAs that are near effluent concentrations are evaluated for limits.

The VPDES Permit Regulation at 9VAC25-31-230.D requires that monthly and weekly average limitations be imposed for continuous discharges from Publicly Owned Treatment Works (POTW) and monthly average and daily maximum limitations be imposed for all other continuous non-POTW discharges.

The following Federal Effluent Guideline abbreviations are used within the discussions in Section 17.c and Sections 19.a through 19.d of the Fact Sheet:

New Source Performance Standards – NSPS

1) Outfall 001

pH:
pH limitations are set at the water quality criteria. As such, the previously established minimum limit of 6.0 S.U. and maximum limit of 9.0 S.U. shall be carried forward with this reissuance. The monitoring frequency of once per month (1/M) shall be carried forward.

Temperature (May – October):
Temperature limitations are set at the water quality criteria. As such, the previously established maximum temperature limit of 32°C shall be carried forward with this reissuance. It is staff's best professional judgement that given the thermal component of the discharge, limitations are most warranted when natural river temperatures are high and demand for electricity is greater and subsequently, days of operation at the facility increase. Therefore, the six month monitoring period of May – October shall be carried forward. The monitoring frequency of once per month (1/M) shall be carried forward.

Dissolved Oxygen:
Dissolved Oxygen limitations are based on best professional judgement and the Water Quality Standards (9VAC25-260-50). As such, the minimum limit of 5.0 mg/L shall be carried forward with this reissuance. The monitoring frequency of once per month (1/M) shall be carried forward.

Total Residual Chlorine (TRC):
Potable water from the local municipality is utilized for station operations. Because potable water contains measurable amounts of chlorine (1.0-3.0 mg/L), TRC limitations are established to prevent impacts (acute and chronic) to aquatic organisms.

In accordance with current DEQ guidance (Memo 00-2011), staff used a default data point of 0.2 mg/L to derive the water quality based limitation. The resulting derivation indicated a water quality based daily maximum limit of 0.016 mg/L and a monthly average limit of 0.016 mg/L is needed (Attachment 9). These limits are consistent with those established during the previous reissuance. As such, the daily maximum TRC limit of 0.016 mg/L and monthly average TRC limit of 0.016 mg/L shall be carried forward with this reissuance. The monitoring frequency of once per month (1/M) shall also be carried forward.

Total Petroleum Hydrocarbons (TPH):
Based on the use of #2 fuel oil at the Gordonsville Power Station, it is staff's best professional judgement that monitoring for TPH continue with this reissuance. Limitations are not proposed. The monitoring frequency of 1/6M shall also be carried forward.

Copper:
The facility completed a streamlined Water Effects Ratio (WER) and chemical translator study in 2010 (see Section 20 of the Fact Sheet for additional information) to address a copper limitation of 5.8 µg/L within the facility's 2008 VPDES permit. As a result of the WER, the facility's permit was modified in 2011 to remove the copper limitation. To provide continued justification for the WER, it is staff's best professional judgement that dissolved copper monitoring be implemented with this reissuance. Limitations are not proposed. A monitoring frequency of once every six months (1/6M) is proposed.

Zinc:
An analysis of the data provided with this reissuance indicates the need for a monthly average and daily maximum zinc limitation of 64 µg/L (Attachment 9). The limits are derived based on one datum point (150 µg/L) which is above the site specific target value of 44 µg/L. Because the limit is derived from one datum point, it is staff's best professional judgement that monitoring be implemented in lieu of a limitation. Monitoring will allow for additional data to be collected to assist in a later determination of whether a zinc limit is warranted. As such, dissolved zinc monitoring shall be implemented with this reissuance. A monitoring frequency of once every six months (1/6M) is proposed.

Total Hardness:
The Water Quality Criteria for some metals are dependent on the effluent hardness (expressed as mg/L calcium carbonate). Because staff has proposed monitoring for dissolved copper, it is staff's best professional judgement that hardness monitoring also be implemented with this reissuance. A monitoring frequency of once every six months (1/6M) is proposed.

2) Internal Outfall 101

Oil and Grease (O&G):
Federal Effluent Guidelines (40 CFR 423.15(c) – New Source Performance Standards) state that that the quantity of pollutants discharged from low volume waste sources shall not exceed the quantity determined by multiplying the flow of low volume waste sources times the daily maximum concentration of 20 mg/L and the monthly average concentration of 15 mg/L.

At the permitting authority's discretion (Federal Effluent Guidelines (40 CFR 423.15(j)(3)), the quantity of pollutants allowed to be discharged may be expressed as a concentration limitation instead of the mass based limitation specified in paragraph 423.15(c). It is staff's best professional judgement that applying the daily maximum concentration of 20 mg/L and the monthly average concentration of 15 mg/L to the discharge is the most conservative approach. These limits are the same as those previous established and as such the daily maximum O&G limit of 20 mg/L and the monthly average O&G limit of 15 mg/L shall be carried forward with this reissuance. The monitoring frequency of once per month (1/M) shall also be carried forward.

Total Suspended Solids (TSS):
Federal Effluent Guidelines (40 CFR 423.15(c) - New Source Performance Standards) state that that the quantity of pollutants discharged from low volume waste sources shall not exceed the quantity determined by multiplying the flow of low volume waste sources times the daily maximum concentration of 100 mg/L and the monthly average concentration of 30 mg/L.

At the permitting authority's discretion (Federal Effluent Guidelines (40 CFR 423.15(j)(3)), the quantity of pollutants allowed to be discharged may be expressed as a concentration limitation instead of the mass based limitation specified in paragraph 423.15(c). It is staff's best professional judgement that applying the daily maximum concentration of 100 mg/L and the monthly average concentration of 30 mg/L to the discharge is the most conservative approach. These limits are the same as those previous established and as such the daily maximum TSS limit of 100 mg/L and the monthly average TSS limit of 30 mg/L shall be carried forward with this reissuance. The monitoring frequency of once per month (1/M) shall also be carried forward.

3) Internal Outfall 103

Oil and Grease (O&G):
Federal Effluent Guidelines (40 CFR 423.15(c) – New Source Performance Standards) state that that the quantity of pollutants discharged from low volume waste sources shall not exceed the quantity determined by multiplying the flow of low volume waste sources times the daily maximum concentration of 20 mg/L and the monthly average concentration of 15 mg/L.

At the permitting authority's discretion (Federal Effluent Guidelines (40 CFR 423.15(j)(3)), the quantity of pollutants allowed to be discharged may be expressed as a concentration limitation instead of the mass based limitation specified in paragraph 423.15(c). It is staff's best professional judgement that applying the daily maximum concentration of 20 mg/L and the monthly average concentration of 15 mg/L to the discharge is the most conservative approach. These limits are the same as those previous established and as such the daily maximum O&G limit of 20 mg/L and the monthly average O&G limit of 15 mg/L shall be carried forward with this reissuance. The monitoring frequency of once per month (1/M) shall also be carried forward.

Total Suspended Solids (TSS):
Federal Effluent Guidelines (40 CFR 423.15(c) - New Source Performance Standards) state that that the quantity of pollutants discharged from low volume waste sources shall not exceed the quantity determined by multiplying the flow of low volume waste sources times the daily maximum concentration of 100 mg/L and the monthly average concentration of 30 mg/L.

At the permitting authority's discretion (Federal Effluent Guidelines (40 CFR 423.15(j)(3)), the quantity of pollutants allowed to be discharged may be expressed as a concentration limitation instead of the mass based limitation specified in paragraph 423.15(c). It is staff's best professional judgement that applying the daily

maximum concentration of 100 mg/L and the monthly average concentration of 30 mg/L to the discharge is the most conservative approach. These limits are the same as those previous established and as such the daily maximum TSS limit of 100 mg/L and the monthly average TSS limit of 30 mg/L shall be carried forward with this reissuance. The monitoring frequency of once per month (1/M) shall also be carried forward.

4) Internal Outfall 104

Oil and Grease (O&G):
Federal Effluent Guidelines (40 CFR 423.15(c) – New Source Performance Standards) state that that the quantity of pollutants discharged from low volume waste sources shall not exceed the quantity determined by multiplying the flow of low volume waste sources times the daily maximum concentration of 20 mg/L and the monthly average concentration of 15 mg/L.

At the permitting authority's discretion (Federal Effluent Guidelines (40 CFR 423.15(j)(3)), the quantity of pollutants allowed to be discharged may be expressed as a concentration limitation instead of the mass based limitation specified in paragraph 423.15(c). It is staff's best professional judgement that applying the daily maximum concentration of 20 mg/L and the monthly average concentration of 15 mg/L to the discharge is the most conservative approach. These limits are the same as those previous established and as such the daily maximum O&G limit of 20 mg/L and the monthly average O&G limit of 15 mg/L shall be carried forward with this reissuance. The monitoring frequency of once per month (1/M) shall also be carried forward.

Total Suspended Solids (TSS):
Federal Effluent Guidelines (40 CFR 423.15(c) - New Source Performance Standards) state that that the quantity of pollutants discharged from low volume waste sources shall not exceed the quantity determined by multiplying the flow of low volume waste sources times the daily maximum concentration of 100 mg/L and the monthly average concentration of 30 mg/L.

At the permitting authority's discretion (Federal Effluent Guidelines (40 CFR 423.15(j)(3)), the quantity of pollutants allowed to be discharged may be expressed as a concentration limitation instead of the mass based limitation specified in paragraph 423.15(c). It is staff's best professional judgement that applying the daily maximum concentration of 100 mg/L and the monthly average concentration of 30 mg/L to the discharge is the most conservative approach. These limits are the same as those previous established and as such the daily maximum TSS limit of 100 mg/L and the monthly average TSS limit of 30 mg/L shall be carried forward with this reissuance. The monitoring frequency of once per month (1/M) shall also be carried forward.

d) Effluent Limitations, Internal Outfalls 101, 103, and 104 – Federal Effluent Guidelines.
The quantity of pollutants discharged from the internal outfalls listed above, are limited by Federal Effluent Guidelines established in 40 CFR – Part 423. Effluent guidelines are technology-based regulations that have been developed by the Environmental Protection Agency (EPA) for a specific category of discharger. These regulations are based on the performance of control and treatment technologies. The effluent limitations for this category of discharger, Steam Electric Power Generating Point Source, have been established using Best Available Technology (BAT), Best Practicable Control Technology (BPT), and New Source Performance Standards (NSPS) guidelines for this type of industry.

e) Effluent Limitations and Monitoring Summary.

The effluent limitations are presented in the following table. Limits were established for Flow, pH, Dissolved Oxygen, Total Residual Chlorine, Temperature, Total Suspended Solids, and Oil and Grease.

Sample Type and Frequency are in accordance with the recommendations in the VPDES Permit Manual.

18. Antibacksliding:

All limits in this permit are at least as stringent as those previously established. Backsliding does not apply to this reissuance.

19a. Effluent Limitations/Monitoring Requirements: Outfall 001 (Retention Basin – Industrial Wastewater and Storm Water)

Average flow is 0.049 MGD.

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL	NA	NA	NL	1/M	Estimate
pH	2	NA	NA	6.0 S.U.	9.0 S.U.	1/M	Grab
Dissolved Oxygen (D.O.)	1,2	NA	NA	5.0 mg/L	NA	1/M	Grab
Total Residual Chlorine (TRC) (after dechlorination)	1,2	0.016 mg/L	0.016 mg/L	NA	NA	1/M	Grab
Temperature (May – October)	1,2	NA	NA	NA	32°C	1/M	IS
Total Hardness (as $CaCo_3$)	1	NL (mg/L)	NL (mg/L)	NA	NA	1/6M	Grab
Copper, Dissolved	1	NL (µg/L)	NL (µg/L)	NA	NA	1/6M	Grab
Zinc, Dissolved	1	NL (µg/L)	NL (µg/L)	NA	NA	1/6M	Grab
Total Petroleum Hydrocarbons (TPH)*	1	NL (mg/L)	NL (mg/L)	NA	NA	1/6M	Grab
Acute Toxicity – *C. dubia* ($_{NOAEC}$)	1	NA	NA	NA	NL	1/YR	Grab
Acute Toxicity – *P. promelas* ($_{NOAEC}$)	1	NA	NA	NA	NL	1/YR	Grab

The basis for the limitations codes are:

1. Best Professional Judgement
2. Water Quality Standards

MGD = Million gallons per day.
NA = Not applicable.
NL = No limit; monitor and report.
S.U. = Standard units.
IS = Immersion stabilization.

1/M = Once every month.
1/6M = Once every six months.
1/YR = Once every year.

1/6M = The semi-annual monitoring period shall be January 1 – June 30 and July 1 - December 31. The DMR shall be submitted no later than the 10th day of the month following the monitoring period (July 10 and January 10, respectively).

1/YR = The annual monitoring period shall be January 1 - December 31. The DMR shall be submitted no later than the 10th day of the month following the monitoring period (January 10).

Total Petroleum Hydrocarbon Requirements:

* TPH is the sum of individual gasoline and diesel range organics or TPH-GRO and TPH-DRO to be measured by EPA SW 846 Method 8015C (2007) for gasoline and diesel range organics, or by EPA SW 846 Methods 8260B (1996) and 8270D (2007). If the combination of Methods 8260B and 8270D is used, the lab must report the total of gasoline range organics, diesel range organics and polynuclear aromatic hydrocarbons. If both are "less than", then report the TPH as less than the sum of the two reporting limits (QLs) or <1.0 mg/L.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.
Grab = An individual sample collected over a period of time not to exceed 15-minutes.

19b. Effluent Limitations/Monitoring Requirements: Outfall 101 (Boiler Blowdown)

Average flow is 0.015 MGD.

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL	NA	NA	NL	1/M	Estimate
Oil and Grease (O&G)	1a,1b	15 mg/L	20 mg/L	NA	NA	1/M	Grab
Total Suspended Solids (TSS)	1a,1b	30 mg/L	100 mg/L	NA	NA	1/M	Grab

The basis for the limitations codes are:

1. Federal Effluent Requirements
   a) 40 CFR 423.15(c)
   b) 40 CFR 423.15(j)(3)

MGD = Million gallons per day.
NA = Not applicable.
1/M = Once every month.

NL = No limit; monitor and report.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.
Grab = An individual sample collected over a period of time not to exceed 15-minutes.

Federal Effluent Requirements:

a) 40 CFR 423.15(c) – NSPS low volume waste sources establishing daily maximum and monthly average limitations for O&G and TSS.
b) 40 CFR 423.15(j)(3) – NSPS quantity of pollutants discharged may be expressed as a concentration instead of a mass balance.

19c. Effluent Limitations/Monitoring Requirements: Outfall 103 (Unit 1 Oil-Water Separator)

Average flow is 0.018 MGD.

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL	NA	NA	NL	1/M	Estimate
Oil and Grease (O&G)	1a,1b	15 mg/L	20 mg/L	NA	NA	1/M	Grab
Total Suspended Solids (TSS)	1a,1b	30 mg/L	100 mg/L	NA	NA	1/M	Grab

The basis for the limitations codes are:

1. Federal Effluent Requirements
   a) 40 CFR 423.15(c)
   b) 40 CFR 423.15(j)(3)

MGD = Million gallons per day.
NA = Not applicable.
1/M = Once every month.

NL = No limit; monitor and report.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.
Grab = An individual sample collected over a period of time not to exceed 15-minutes.

Federal Effluent Requirements:

a) 40 CFR 423.15(c) – NSPS low volume waste sources establishing daily maximum and monthly average limitations for O&G and TSS.
b) 40 CFR 423.15(j)(3) – NSPS quantity of pollutants discharged may be expressed as a concentration instead of a mass balance.

19d. Effluent Limitations/Monitoring Requirements: Outfall 104 (Unit 2 Oil-Water Separator)

Average flow is 0.0004 MGD.

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL	NA	NA	NL	1/M	Estimate
Oil and Grease (O&G)	1a,1b	15 mg/L	20 mg/L	NA	NA	1/M	Grab
Total Suspended Solids (TSS)	1a,1b	30 mg/L	100 mg/L	NA	NA	1/M	Grab

The basis for the limitations codes are:

1. Federal Effluent Requirements
   a) 40 CFR 423.15(c)
   b) 40 CFR 423.15(j)(3)

MGD = Million gallons per day.
NA = Not applicable.
1/M = Once every month.
NL = No limit; monitor and report.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.
Grab = An individual sample collected over a period of time not to exceed 15-minutes.

Federal Effluent Requirements:

a) 40 CFR 423.15(c) – NSPS low volume waste sources establishing daily maximum and monthly average limitations for O&G and TSS.
b) 40 CFR 423.15(j)(3) – NSPS quantity of pollutants discharged may be expressed as a concentration instead of a mass balance.

20. Water Effects Ratio and Chemical Translator Studies:

During the last reissuance, it was determined that a copper limit of 5.8 µg/L was necessary. Semi-annual monitoring and a three year schedule of compliance were included in the 2008 permit reissuance. The copper limit was to become effective on January 20, 2011. In response to the limit, Dominion opted to pursue a Water Effects Ratio (WER) streamlined study for copper as provided for in the Virginia Water Quality Standards at 9VAC25-260-140. Dominion also completed a chemical translator and characterization of in-stream hardness study.

Water Effects Ratio

The Dominion study followed EPA guidance for a Streamlined Water Effect Ratio Procedure for the Discharges of Copper (EPA 822-R-01-05). The Final Streamlined WER Report was submitted to DEQ on May 14, 2010. DEQ staff reviewed the WER study and approved the use of a dissolved copper WER of 2.593 to adjust the copper criteria The WER study was submitted to the U.S. EPA for their review on October 28, 2010. In correspondence dated January 5, 2011, EPA had no comments on the WER study.

Per 9VAC25-260-140F, the formulas for the freshwater acute and chronic criteria (µg/L) for copper utilize a default WER value of 1.0 unless shown otherwise.

Acute Criteria

$$WER \times [e\{0.9422[\ln(hardness)]-1.700\}] \times (CF_a)$$
Where $CF_a = 0.96$

Chronic Criteria

$$WER \times [e\{0.8545[\ln(hardness)]-1.702\}] \times (CF_c)$$
Where $CF_c = 0.96$

A Wasteload Allocation analysis was conducted using the average receiving stream hardness of 64 mg/L and an average effluent hardness of 8.5 mg/L. The following acute and chronic copper Waste Load Allocations (WLAs) were calculated.

Acute WLA	Chronic WLA
6.8 µg/L	6.5 µg/L

Because the formulas for the freshwater acute and chronic criteria (µg/L) for copper utilize a default WER value of 1.0, the above WLA was multiplied by the WER value of 2.593. The following acute and chronic copper criteria for the Dominion – Gordonsville Power Station were derived.

Acute Criteria	Chronic Criteria
18 µg/L	16 µg/L

The WER Study Review is found as Attachment 10.

Chemical Translator

In 1993, EPA recommended that dissolved metal concentrations be used for the application of metals aquatic life criteria and that State water quality standards be based on dissolved metals. However, permit limits for metals shall be expressed as total recoverable. An additional calculation (translator) is applied to the Waste Load Allocation (WLA) to produce a permit limit expressed as total recoverable.

The Derivation of a Chemical Translator and Characterization of In-stream Hardness Report was submitted to DEQ on May 14, 2010. DEQ staff reviewed the translator study and approved the use of a translator of 0.4052 on September 7, 2010.

Per EPA guidance, The Metals Translator: Guidance for Calculating a Total Recoverable Permit Limit from a Dissolved Criterion (EPA 823-B-96-007), the translator is applied by dividing a dissolved WLA by the translator to produce a total recoverable limit.

Using the approved translator value of 0.4052, the final acute and chronic criteria for the Dominion – Gordonsville Power Station were derived.

Acute Criteria			Chronic Criteria		
$\frac{18\ \mu g/L}{0.4052}$	=	44 µg/L	$\frac{16\ \mu g/L}{0.4052}$	=	39 µg/L

Using the above criteria and copper monitoring data submitted from 2004 –2010 (including that data used to determine the proposed copper limit), it was determined that a copper limit was no longer warranted. The Chemical Translator Study Review is found as Attachment 11.

21. Storm Water Requirements:

With this reissuance Dominion has requested that storm water language be removed from the permit. Staff has reviewed the request and storm water monitoring and reporting requirements were removed from the permit based on the following rationale.

The original Multi Sector General Permit (MSGP) for Storm Water Associated with Industrial Activities was published in the Federal Register on September 29, 1995. Section O of the Preamble to this regulation describes "Storm Water Discharges Associated with Industrial Activities from Steam Electric Power Generating Facilities, Including Coal Handling Areas" and addressed specific types of electric power generating facilities that are not covered under the definition of storm water discharges associated with industrial activity. The Preamble specifically states "heat captured co-generating facilities are not covered under the definition of storm water discharge associated with industrial activity".

An exclusion from the 2000 National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activities specific to Steam Electric Generating Facilities is located within Section 6.O.3.2. This section states "gas turbine stations…that are not contiguous to a steam electric power generating facility" and "heat captured co-generation facilities" are not covered by the NPDES MSGP for Storm Water Discharges Associated with Industrial Activity. This language is also included in the 2008 EPA MSGP.

The 2009 VPDES General Permit for Storm Water Discharges Associated with Industrial Activity (SWGP) specifically excludes from coverage ancillary facilities (e.g. fleet centers, gas turbine stations, and substations) that are not contiguous to a steam electric power generating facility. Heat capture/heat recovery combined cycle generation facilities are also not covered by this permit. As such, the facility is not subject to the storm water monitoring and reporting requirements outlined in Sector O of the VPDES SWGP. The determination to remove storm water monitoring and reporting requirements does not alter the facility's ability to discharge storm water. The facility is still authorized to discharge storm water from Outfall 001.

22. Other Permit Requirements:

a) Part I.B. of the permit contains quantification levels and compliance reporting instructions. 9VAC25-31-190.L.4.c. requires an arithmetic mean for measurement averaging and 9VAC25-31-220.D. requires limits be imposed where a discharge has a reasonable potential to cause or contribute to an in-stream excursion of water quality criteria. Specific analytical methodologies for toxics are listed in this permit section as well as quantification levels (QLs) necessary to demonstrate compliance with applicable permit limitations or for use in future evaluations to determine if the pollutant has reasonable potential to cause or contribute to a violation. Required averaging methodologies are also specified.

b) Permit Section Part I.C., details the requirements for Whole Effluent Toxicity (WET) Program. The VPDES Permit Regulation at 9VAC25-31-210 requires monitoring and 9VAC25-31-220.I, requires limitations in the permit to provide for and assure compliance with all applicable requirements of the State Water Control Law and the Clean Water Act. A WET Program is imposed for municipal facilities with a design rate >1.0 MGD, with an approved pretreatment program or required to develop a pretreatment program, or those determined by the Board based on effluent variability, compliance history, IWC, and receiving stream characteristics.

23. Other Special Conditions:

a) O&M Manual Requirement. The permittee shall maintain a current Operations and Maintenance (O&M) Manual for the facility that is in accordance with Virginia Pollutant Discharge Elimination System Regulations, 9VAC25-31. The O&M Manual and subsequent revisions shall include the manual effective date and meet Part II.K.2 and Part II.K.4 Signatory Requirements of the permit. Any changes in the practices and procedures followed by the permittee shall be documented in the O&M Manual within 90 days of the effective date of the changes. The permittee shall operate the facility in accordance with the O&M Manual and shall make the O&M manual available to Department personnel for review during facility inspections. Within 30 days of a request by DEQ, the current O&M Manual shall be submitted to the DEQ Northern Regional Office for review and approval.

b) Notification Levels. The permittee shall notify the Department as soon as they know or have reason to believe:

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:

(1) One hundred micrograms per liter;

(2) Two hundred micrograms per liter for acrolein and acrylonitrile; five hundred micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter for antimony;

(3) Five times the maximum concentration value reported for that pollutant in the permit application; or

(4) The level established by the Board.

b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:

(1) Five hundred micrograms per liter;

(2) One milligram per liter for antimony;

(3) Ten times the maximum concentration value reported for that pollutant in the permit application; or

(4) The level established by the Board.

c) Materials Handling/Storage. 9VAC25-31-50 A prohibits the discharge of any wastes into State waters unless authorized by permit. Code of Virginia §62.1-44.16 and §62.1-44.17 authorize the Board to regulate the discharge of industrial waste or other waste.

d) Water Quality Criteria Reopener. The VPDES Permit Regulation at 9VAC25-31-220 D. requires establishment of effluent limitations to ensure attainment/maintenance of receiving stream water quality criteria. Should data collected and submitted for Attachment A of the permit, indicate the need for limits to ensure protection of water quality criteria, the permit may be modified or alternately revoked and reissued to impose such water quality-based limitations.

e) Water Quality Criteria Monitoring. State Water Control Law §62.1-44.21 authorizes the Board to request information needed to determine the discharge's impact on State waters. States are required to review data on discharges to identify actual or potential toxicity problems, or the attainment of water quality goals, according to 40 CFR Part 131, Water Quality Standards, subpart 131.11. To ensure that water quality criteria are maintained, the permittee is required to analyze the facility's effluent for the substances noted in Attachment A of this VPDES permit.

f) Discharge of Detergents, Surfactants, or Solvents to the Oil/Water Separators. This special condition is necessary to ensure that the oil/water separators' performance is not impacted by compounds designed to emulsify oil. Detergents, surfactants, and some other solvents will prohibit oil recovery by physical means.

g) Polychlorinated Biphenyl. There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid. Compliance with this requirement shall be determined using EPA Method 608 (as referenced in 40 CFR Part 136).

h) Prohibition of Chemical Additives. Chemical additives may not be used in non-contact cooling water without prior notification to the Department of Environmental Quality, Northern Regional Office (DEQ-NRO). The chemical additives may be toxic and/or otherwise violate the receiving stream water quality standards. Upon notification, the Regional Office can determine if this activity will warrant a modification to the permit.

i) TMDL Reopener: This special condition is to allow the permit to reopened if necessary to bring it in compliance with any applicable TMDL that may be developed and approved for the receiving stream.

Permit Section Part II. Part II of the permit contains standard conditions that appear in all VPDES Permits. In general, these standard conditions address the responsibilities of the permittee, reporting requirements, testing procedures and records retention.

24. Changes to the Permit from the Previously Issued Permit:

a) Special Conditions:
1. The O&M special condition has been revised to be consistent with current agency practice.
2. The No Discharge of Detergents, Surfactants, or Solvents to the Oil/Water Separators special condition has been added to the permit to be consistent with current agency practice.

b) Monitoring and Effluent Limitations:
1. Monitoring for Dissolved Copper at Outfall 001, without effluent limitation, has been added to the permit to provide continued justification for the WER.
2. Monitoring for Dissolved Zinc at Outfall 001, without effluent limitation, has been added based on data submitted with the reapplication package.
3. Monitoring for Total Hardness at Outfall 001 has been added to the permit.
4. Since the previous reissuance, the Toxicity Management Program (TMP) name has changed from TMP to Whole Effluent Toxicity Program. This change is reflected within the proposed permit to be consistent to with current agency practice.
5. Storm water monitoring and reporting requirements were removed from the permit based on the following rationale found within Section 21 of the Fact Sheet. As a result, Outfall 901 was removed from the facility's permit.

25. Variances/Alternate Limits or Conditions: None

26. Public Notice Information:

First Public Notice Date: February 14, 2013 Second Public Notice Date: February 21, 2013

Public Notice Information is required by 9VAC25-31-280 B. All pertinent information is on file and may be inspected, and copied by contacting the: DEQ Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193, Telephone No. (703) 583-3853, susan.mackert@deq.virginia.gov. See Attachment 12 for a copy of the public notice document.

Persons may comment in writing or by email to the DEQ on the proposed permit action, and may request a public hearing, during the comment period. Comments shall include the name, address, and telephone number of the writer and of all persons represented by the commenter/requester, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within this period will be considered. The DEQ may decide to hold a public hearing, including another comment period, if public response is significant and there are substantial, disputed issues relevant to the permit. Requests for public hearings shall state 1) the reason why a hearing is requested; 2) a brief, informal statement regarding the nature and extent of the interest of the requester or of those represented by the requester, including how and to what extent such interest would be directly and adversely affected by the permit; and 3) specific references, where possible, to terms and conditions of the permit with suggested revisions. Following the comment period, the Board will make a determination regarding the proposed permit action. This determination will become effective, unless the DEQ grants a public hearing. Due notice of any public hearing will be given. The public may request an electronic copy of the draft permit and fact sheet or review the draft permit and application at the DEQ Northern Regional Office by appointment.

27. Additional Comments:

Previous Board Action(s): None

Staff Comments: After the submittal of the facility's application in August 2012, the Town of Gordonsville changed the facility's physical street address from 115 Red Hill Road to 819 Hill Road. This was done to accommodate the 911 emergency response system of the locality. This change is reflected within the draft permit and Fact Sheet. A revised Form 1 was received by the permittee on January 8, 2013.

Public Comment: TBD

EPA Checklist: The checklist can be found in Attachment 13.

Fact Sheet Attachments – Table of Contents

Dominion – Gordonsville Power Station
VA0087033

2013 Reissuance

MEMORANDUM

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

NORTHERN REGIONAL OFFICE

13901 Crown Court Woodbridge, VA 22193

SUBJECT: Flow Frequency Determination
Dominion – Gordonsville Power Station (VA0087033)

TO: File

FROM: Susan Mackert

DATE: October 31, 2012

COPIES:

The Dominion – Gordonsville Power Station discharges to the South Anna River near Gordonsville, Virginia. Stream flow frequencies are required at this site for use in developing effluent limitations for the VPDES permit. This memo supersedes the October 30, 1996, and December 4, 2007 flow frequency determination memos concerning the subject VPDES permit.

Based on discussions with Dominion during the previous reissuance in 2008, they believed the watershed of the South Anna River upstream of Outfall 001 to be approximately 6.1 square miles rather than the 5.0 square miles as presented in the original flow frequency determination from 1996. The 6.1 square miles was based on calculations and observations of the USGS topographic map for the area.

With the 2013 reissuance, DEQ staff utilized GIS and determined the drainage area to be 5.1 square miles. This drainage area is reflected within the planning statement (see Attachment 7). DEQ staff has compared the flow frequency determinations for both the 5.1 and 6.1 square mile drainage areas and finds no significant difference. It is staff's best professional judgement that a drainage area of 6.1 square miles be used as it provides consistency with the previous permit and subsequent Water Effects Ratio and chemical translator study.

Contrary Creek near Mineral, VA (#01670300):

Drainage Area = 5.1 square miles

1Q10	=	0.023 MGD	High Flow 1Q10	=	0.381 MGD
7Q10	=	0.029 MGD	High Flow 7Q10	=	0.494 MGD
30Q5	=	0.124 MGD	High Flow 30Q10	=	0.710 MGD
30Q10	=	0.071 MGD	Harmonic Mean	=	0.536 MGD

Drainage Area = 6.1 square miles

1Q10	=	0.028 MGD	High Flow 1Q10	=	0.452 MGD
7Q10	=	0.035 MGD	High Flow 7Q10	=	0.591 MGD
30Q5	=	0.149 MGD	High Flow 30Q10	=	0.853 MGD
30Q10	=	0.085 MGD	Harmonic Mean	=	0.639 MGD

The high flow months are November through April.

NPDES PERMIT RATING WORK SHEET

[X] Regular Addition
[ ] Discretionary Addition
[ ] Score change, but no status Change
[ ] Deletion

VPDES NO. : VA0087033

Facility Name: Dominion – Gordonsville Power Station
City / County: Gordonsville / Louisa County
Receiving Water: South Anna River
Waterbody ID: VAN-F01R

Is this facility a steam electric power plant (sic =4911) with one or more of the following characteristics?

1. Power output 500 MW or greater (not using a cooling pond/lake)
2. A nuclear power Plant
3. Cooling water discharge greater than 25% of the receiving stream's 7Q10 flow rater

[ ] Yes; score is 600 (stop here) [X] NO; (continue)

Is this permit for a municipal separate storm sewer serving a population greater than 100,000?

[ ] YES; score is 700 (stop here)
[X] NO; (continue)

FACTOR 1: Toxic Pollutant Potential

PCS SIC Code: _____ Primary Sic Code: 4911 Other Sic Codes: _____ _____ _____

Industrial Subcategory Code: 000 (Code 000 if no subcategory)

Determine the Toxicity potential from Appendix A. Be sure to use the TOTAL toxicity potential column and check one)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
[ ] No process waste streams	0	0	[ ] 3.	3	15	[ ] 7.	7	35
[ ] 1.	1	5	[ ] 4.	4	20	[ ] 8.	8	40
[ ] 2.	2	10	[ ] 5.	5	25	[ ] 9.	9	45
			[X] 6.	6	30	[ ] 10.	10	50

Code Number Checked: 6

Total Points Factor 1: 30

FACTOR 2: Flow/Stream Flow Volume (Complete either Section A or Section B; check only one)

Section A – Wastewater Flow Only considered

Wastewater Type (see Instructions)			Code	Points
Type I:	Flow < 5 MGD	[ ]	11	0
	Flow 5 to 10 MGD	[ ]	12	10
	Flow > 10 to 50 MGD	[ ]	13	20
	Flow > 50 MGD	[ ]	14	30
Type II:	Flow < 1 MGD	[ ]	21	10
	Flow 1 to 5 MGD	[ ]	22	20
	Flow > 5 to 10 MGD	[ ]	23	30
	Flow > 10 MGD	[ ]	24	50
Type III:	Flow < 1 MGD	[ ]	31	0
	Flow 1 to 5 MGD	[ ]	32	10
	Flow > 5 to 10 MGD	[ ]	33	20
	Flow > 10 MGD	[ ]	34	30

Section B – Wastewater and Stream Flow Considered

Wastewater Type (see Instructions)	Percent of Instream Wastewater Concentration at Receiving Stream Low Flow		Code	Points
Type I/III:	< 10 %	[ ]	41	0
	10 % to < 50 %	[ ]	42	10
	> 50%	[ ]	43	20
Type II:	< 10 %	[ ]	51	0
	10 % to < 50 %	[ ]	52	20
	> 50 %	[X]	53	30

Code Checked from Section A or B: 53

Total Points Factor 2: 30

NPDES PERMIT RATING WORK SHEET

FACTOR 3: Conventional Pollutants

(only when limited by the permit)

A. Oxygen Demanding Pollutants: (check one) ☐ BOD ☐ COD ☐ Other: _____

Permit Limits: (check one)	Code	Points
☐ < 100 lbs/day	1	0
☐ 100 to 1000 lbs/day	2	5
☐ > 1000 to 3000 lbs/day	3	15
☐ > 3000 lbs/day	4	20

Code Number Checked: NA

Points Scored: 0

B. Total Suspended Solids (TSS)

Permit Limits: (check one)	Code	Points
☒ < 100 lbs/day	1	0
☐ 100 to 1000 lbs/day	2	5
☐ > 1000 to 5000 lbs/day	3	15
☐ > 5000 lbs/day	4	20

Code Number Checked: 1

Points Scored: 0

C. Nitrogen Pollutants: (check one) ☐ Ammonia ☐ Other: _____

Permit Limits: (check one)	*Nitrogen Equivalent*	Code	Points
☐	< 300 lbs/day	1	0
☐	300 to 1000 lbs/day	2	5
☐	> 1000 to 3000 lbs/day	3	15
☐	> 3000 lbs/day	4	20

Code Number Checked: NA

Points Scored: 0

Total Points Factor 3: 0

FACTOR 4: Public Health Impact

Is there a public drinking water supply located within 50 miles downstream of the effluent discharge (this include any body of water to which the receiving water is a tributary)? A public drinking water supply may include infiltration galleries, or other methods of conveyance that ultimately get water from the above reference supply.

☒ YES; (If yes, check toxicity potential number below)

☐ NO; (If no, go to Factor 5)

Determine the *Human Health* potential from Appendix A. Use the same SIC doe and subcategory reference as in Factor 1. (Be sure to use the *Human Health* toxicity group column – check one below)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
☐ No process waste streams	0	0	☐ 3.	3	0	☐ 7.	7	15
☐ 1.	1	0	☐ 4.	4	0	☐ 8.	8	20
☐ 2.	2	0	☐ 5.	5	5	☐ 9.	9	25
			☒ 6.	6	10	☐ 10.	10	30

Code Number Checked: 6

Total Points Factor 4: 10

NPDES PERMIT RATING WORK SHEET

FACTOR 5: Water Quality Factors

A. *Is (or will) one or more of the effluent discharge limits based on water quality factors of the receiving stream (rather than technology-base federal effluent guidelines, or technology-base state effluent guidelines), or has a wasteload allocation been to the discharge*

		Code	Points
[ ]	YES	1	10
[X]	NO	2	0

B. *Is the receiving water in compliance with applicable water quality standards for pollutants that are water quality limited in the permit?*

		Code	Points
[X]	YES	1	0
[ ]	NO	2	5

C. *Does the effluent discharged from this facility exhibit the reasonable potential to violate water quality standards due to whole effluent toxicity?*

		Code	Points
[ ]	YES	1	10
[X]	NO	2	0

Code Number Checked: A 2 B 1 C 2

Points Factor 5: A 0 + B 0 + C 0 = **0**

FACTOR 6: Proximity to Near Coastal Waters

A. Base Score: Enter flow code here (from factor 2) 53

Check appropriate facility HPRI code (from PCS):

	HPRI#	Code	HPRI Score
[ ]	1	1	20
[ ]	2	2	0
[ ]	3	3	30
[X]	4	4	0
[ ]	5	5	20

Enter the multiplication factor that corresponds to the flow code: _____

Flow Code	Multiplication Factor
11, 31, or 41	0.00
12, 32, or 42	0.05
13, 33, or 43	0.10
14 or 34	0.15
21 or 51	0.10
22 or 52	0.30
23 or 53	0.60
24	1.00

HPRI code checked : 4

Base Score (HPRI Score): 0 X (Multiplication Factor) 0.60 = 0

B. Additional Points – NEP Program

For a facility that has an HPRI code of 3, does the facility discharge to one of the estuaries enrolled in the National Estuary Protection (NEP) program (see instructions) or the Chesapeake Bay? **NA**

	Code	Points
[ ]	1	10
[ ]	2	0

C. Additional Points – Great Lakes Area of Concern

For a facility that has an HPRI code of 5, does the facility discharge any of the pollutants of concern into one of the Great Lakes' 31 area's of concern (see instructions)? **NA**

	Code	Points
[ ]	1	10
[ ]	2	0

Code Number Checked: A 4 B NA C NA

Points Factor 6: A 0 + B 0 + C 0 = **0**

NPDES PERMIT RATING WORK SHEET

SCORE SUMMARY

Factor	Description	Total Points
1	Toxic Pollutant Potential	30
2	Flows / Streamflow Volume	30
3	Conventional Pollutants	0
4	Public Health Impacts	10
5	Water Quality Factors	0
6	Proximity to Near Coastal Waters	0
	TOTAL (Factors 1 through 6)	70

S1. Is the total score equal to or grater than 80 ☐ YES; (Facility is a Major) ☒ NO

S2. If the answer to the above questions is no, would you like this facility to be discretionary major?

☒ NO

☐ YES; (Add 500 points to the above score and provide reason below:

Reason: _____

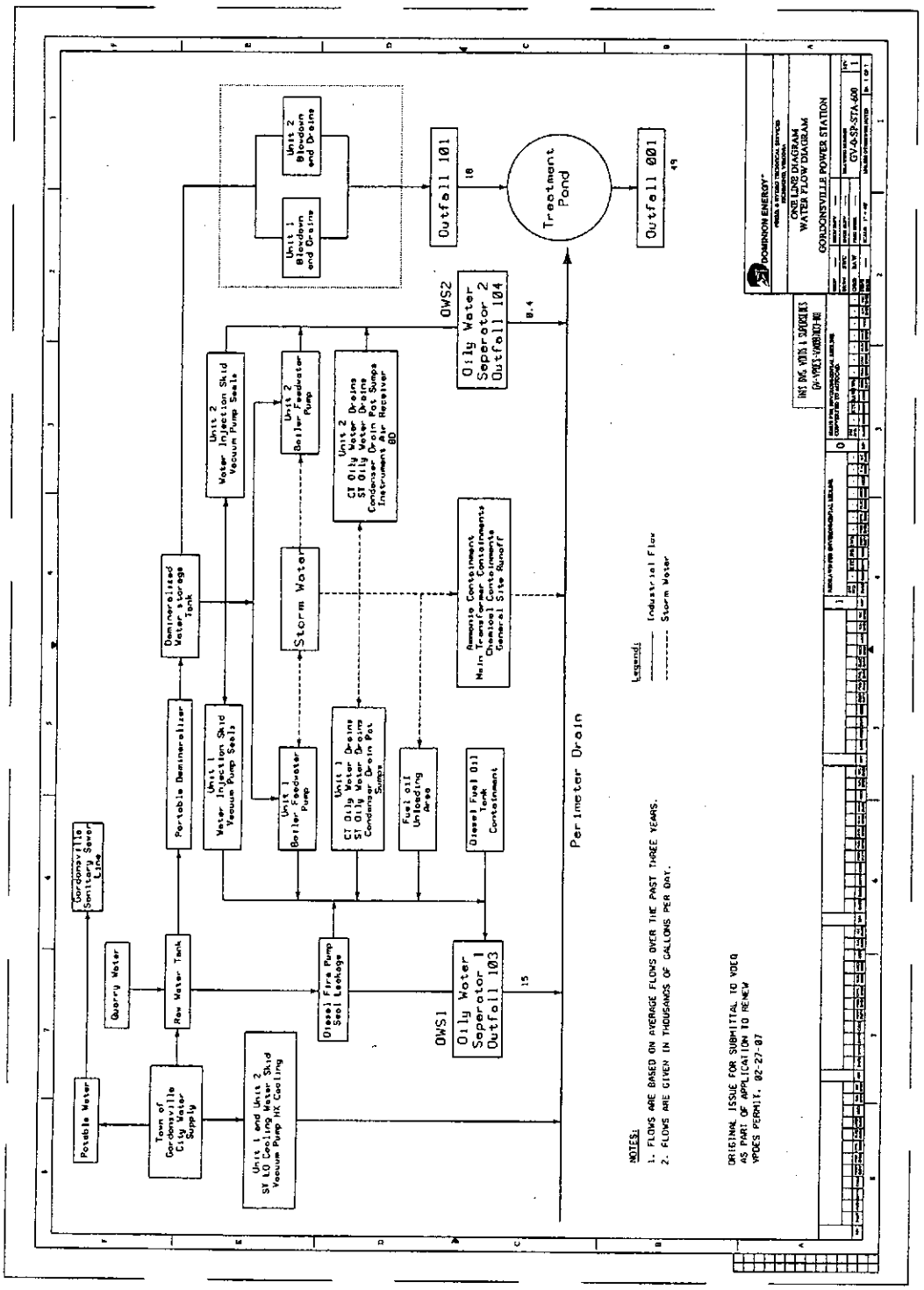
NEW SCORE : 70

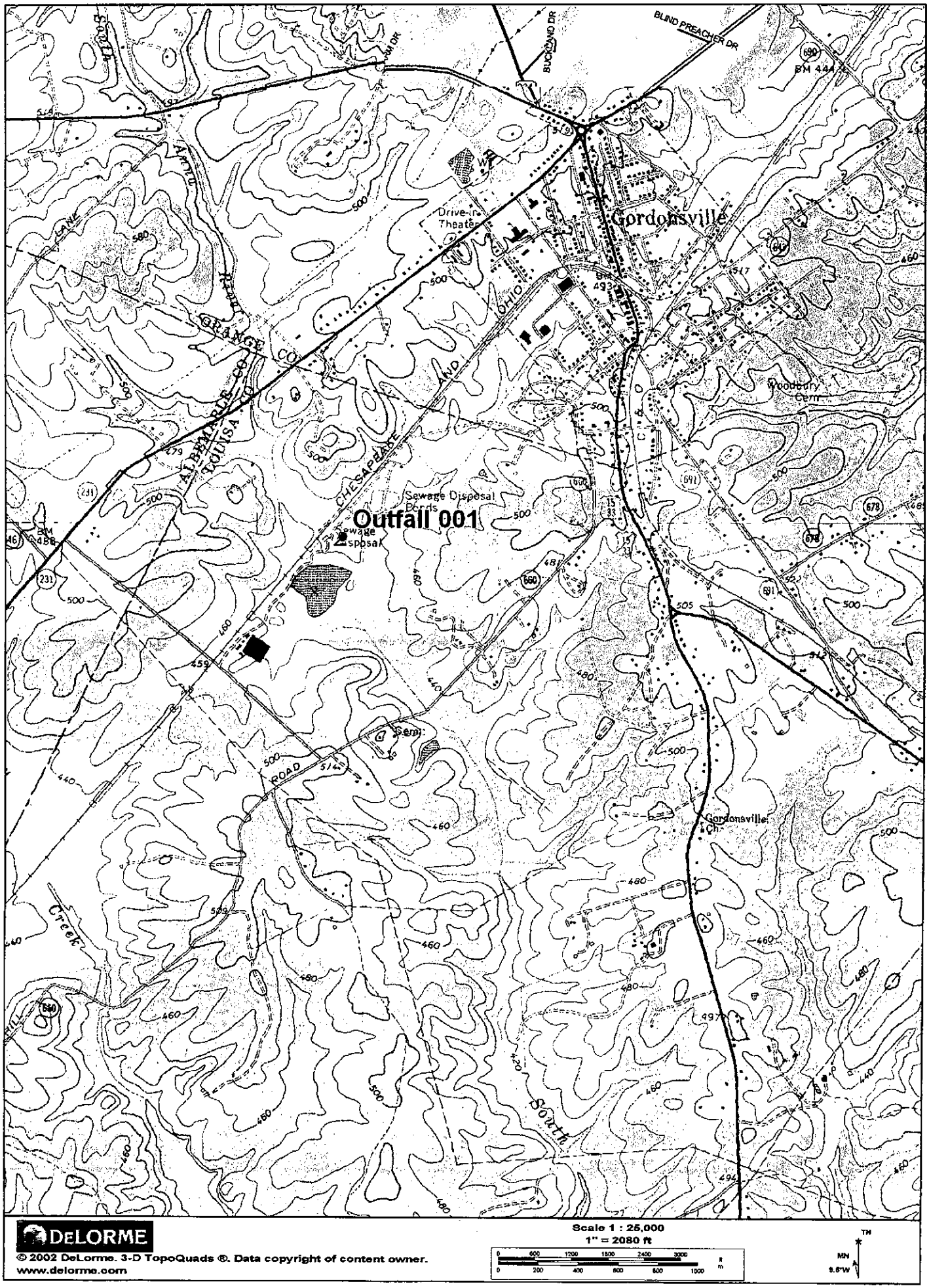
OLD SCORE : 70

Permit Reviewer's Name : Susan Mackert

Phone Number: (703) 583-3853

Date: October 31, 2012


Gordonsville Sanitary Sewer Line
Potable Water
Quarry Water
Town of Gordonsville City Water Supply
Raw Water Tank
Unit 1 and Unit 2 ST LO Cooling Water Skid Vacuum Pump HX Cooling
Diesel Fire Pump Seal Leakage
OWS1
Oily Water Seperator 1 Outfall 103
15
Portable Demineralizer
Demineralized Water Storage Tank
Unit 1 Water Injection Skid Vacuum Pump Seals
Unit 1 Boiler Feedwater Pump
Unit 1 CT Oily Water Drains ST Oily Water Drains Condenser Drain Pot Sumps
Fuel oil Unloading Area
Diesel Fuel Oil Tank Containment
Storm Water
Unit 2 Water Injection Skid Vacuum Pump Seals
Unit 2 Boiler Feedwater Pump
Unit 2 CT Oily Water Drains ST Oily Water Drains Condenser Drain Pot Sumps Instrument Air Receiver 80
Ammonia Containment Main Transformer Containments Chemical Containments General Site Runoff
Perimeter Drain
Unit 1 Blowdown and Drains
Unit 2 Blowdown and Drains
Outfall 101
18
Treatment Pond
Outfall 001
49
OWS2
Oily Water Seperator 2 Outfall 104
8.4
Legend:
Industrial Flow
Storm Water
NOTES:
1. FLOWS ARE BASED ON AVERAGE FLOWS OVER THE PAST THREE YEARS.
2. FLOWS ARE GIVEN IN THOUSANDS OF GALLONS PER DAY.
ORIGINAL ISSUE FOR SUBMITTAL TO VDEQ AS PART OF APPLICATION TO RENEW VPDES PERMIT, 02-27-07
DOMINION ENERGY
ONE LINE DIAGRAM WATER FLOW DIAGRAM
GORDONSVILLE POWER STATION
GV-BSP-STA-600


Outfall 001
Gordonsville
Sewage Disposal Ponds
Sewage Disposal
Drive-In Theater
Woodberry Cem.
Gordonsville Ch.
BLIND PREACHER DR
BUCKLAND DR
ORANGE CO
ALBEMARLE CO
LOUISA CO
CHESAPEAKE AND OHIO
ROAD
South
Creek
DeLORME
© 2002 DeLorme. 3-D TopoQuads ®. Data copyright of content owner.
www.delorme.com
Scale 1 : 25,000
1" = 2080 ft

PORTABLE RESTROOMS:	Loading	POLLUTANT: Sewage Sludge DIRECT EXPOSURE: No POTENTIAL TO DISCHARGE: Low

4.2 Description of EPRCA § 313 Inventory

VA0087033, Part I, D.1.g.: Releases of Hazardous Substances or Oil in Excess of Reportable Quantities *(SWPPP Cross Reference #7)*

This Facility generates electricity by burning Fuel Oil and therefore the relevant EPCRA 313 (TRI) pollutants are typically associated with burning Fuel Oil. A TRI report is submitted on an annual basis and identifies all TRI chemicals that may be released to Air, Land and Water. Copies of the Annual TRI reports are filed in the Station's Environmental files and available upon request.

4.3 Site Bulk Chemicals/ Materials

VA0087033, Part I, D.2.b.(6)(a): Strom Water Controls *(SWPP Cross Reference #16)*

Chemical / Material Storage / Accessories		
Material	**Storage Capacity (Gallons)**	**Secondary Containment (Gallons)**
SULFURIC ACID STORAGE BUILDING: - Sulfuric Acid (Map Key #S1)	110 Gal.	Concrete Curbing : ≥ 120 gallons
AQUEOUS AMMONIA TANK: - Aqueous Ammonia (Map Key #S2)	25,000 Gal.	Concrete Curbing: ≥ 27,500 gallons
NEUTRALIZING AMINE STORAGE TOTES: - Neutralizing Amine (Map Key #S3)	2 - 300 Gal.	Concrete Curbing: ≥ 440 gallons
OXYGEN SCAVENGER STORAGE TOTES: - Oxygen Scavenger (Map Key #S4)	2 - 400 Gal.	Concrete Curbing: ≥ 440 gallons
PHOSPHATE CONTROL STORAGE TOTES: - Phosphate Control (Map Key #S5)	2 - 400 Gal.	Concrete Curbing: ≥ 440 gallons
LAYDOWN AREA: (Map Key #S6)	Various	Materials are placed inside the Facility's perimeter drainage ditch system that directs flows to the WWTFRP.

Chemical / Material Storage / Accessories		
Material	**Storage Capacity (Gallons)**	**Secondary Containment (Gallons)**
GENERAL REFUSE DUMPSTER AREA: (Map Key #S7)	Various Dumpsters	All containers are placed inside the Facility's perimeter drainage ditch system that directs flows to the WWTFRP.
STEAM TURBINES: - Lube Oil (Map Key #S8)	3 -10 Gal.	The lube oil skid is equipped with concrete secondary containment and located inside the Facility's perimeter drainage ditch system that directs flows to the WWTFRP.

Chemical & Material Unloading & Transfer Facilities		
Material Unloading/Transfer	**Spill Potential (Volume)**	**Structural BMPs Secondary Containment (Gallons)**
FUEL OIL BOOSTER PUMP SKID: - #2 Fuel Oil (Map Key #S34)	1 – 5 Million Gal. 10 – 450 gpm	Any released oil would discharge to the WWTFRP.
CT TURBINE SUMPS - Turbine Wash Water (Map Key #S9)	1 – 350 gallons 13 gpm	Any released Turbine Wash Water would discharge to the WWTFRP.
AQUEOUS AMMONIA UNLOADING AREA: - Aqueous Ammonia (Map Key #S2)	1 – 25,000 gallons at 10 gpm	Unloading area has a drainage grate which discharges to the WWTFRP. Written procedure GPS-OPS-620.
NEUTRALIZING AMINE STORAGE TOTES: - Neutralizing Amine (Map Key #S3)	1 – 400 gallons at 10 gpm	Water treatment chemicals are unloaded and stored within the Station drainage system. Any released chemicals would discharge to the WWTFRP. Written procedure POP-CH-01.
OXYGEN SCAVENGER STORAGE TOTES: - Oxygen Scavenger (Map Key # S4)	1 – 400 gallons at 10 gpm	Water treatment chemicals are unloaded and stored within the Station drainage system. Any released chemicals would discharge to the WWTFRP. Written procedure POP-CH-01.
PHOSPHATE CONTROL STORAGE TOTES: - Phosphate Control (Map Key # S5)	1 – 400 gallons at 10 gpm	Water treatment chemicals are unloaded and stored within the Station drainage system. Any released chemicals would discharge to the WWTFRP. Written procedure POP-CH-01.

Chemical & Material Unloading & Transfer Facilities		
GENERAL REFUSE DUMPSTER AREA: (Map Key #S7)	Various	All containers are placed inside the Facility's perimeter drainage ditch system that directs flows to the WWTFRP.
PORTABLE RESTROOMS: (Map Key #S10)	300 gallons	Located so any spills would be contained by the perimeter drainage ditch and WWTFRP.

4.4 Site Bulk Oil

VA0087033, Part I, D.2.b.(6)(a): Storm Water Controls *(SWPP Cross Reference #16)*

For a list of the petroleum related equipment and unloading practices, please refer the Station's FRP/ODCP/SPCC Comprehensive Plan, which is maintained at the Station under separate cover.

4.5 Sediment & Erosion

VA0087033, Part I, D.2.a(2): Measure That Require Construction *(SWPPP Cross Reference #9)*
VA0087033, Part I, D.2.b.(6)(a): Strom Water Controls *(SWPP Cross Reference #16)*
VA0087033, Part I, D.2.b.(6)(b)(vii): Sediment and Erosion Control. *(SWPPP Cross Reference #23)*
VA0087033, Part I, D.2.b.(6)(b)(viii): Management of Runoff. *(SWPPP Cross Reference #24)*

4.5.1 Sediment and Erosion Control

The Station utilizes curbs, concrete trenches, gravel and grates/inlets to control storm water runoff. Refer to the Appendix C for drainage area impervious surface percentages such as roof tops and paved parking lots and roads. The other areas consist of Station equipment on gravel beds, the WWTRP, adjacent wetland areas and some grassy areas. No evidence of serve erosion is currently present.

4.5.2 Construction Erosion & Sediment Control

Appendix G is reserved for Erosion Control and Sediment Plan insertion in the event of construction activity at the Station. Such plans are required for Construction Storm Water Permits and developed with a specific focus on site topography, drainage patterns, soils, ground cover, and adjacent runoff areas.

4.6 Salt Storage

VA0087033, Part I,D.1.h.: Additional Requirements for Salt Storage *(SWPPP Cross Reference #4)*

The Station receives salt in bags and stored in a storm resistant shelter.

5.0 Storm Water Controls

VA0087033, Part I, D.2.b.(6)(a): Storm Water Controls. *(SWPPP Cross Reference #16)*
VA0087033, Part I, D.2.b.(6)(b)(vii): Sediment and Erosion Control. *(SWPPP Cross Reference #23)*
VA0087033, Part I, D.2.b.(6)(b)(viii): Management of Runoff. *(SWPPP Cross Reference #24)*

Storm water management controls appropriate for the Station can be summarized as follows:

UNIT OR AREA NAME	APPROPRIATE STORM WATER MANAGEMENT CONTROLS
Storage Tanks	Secondary Containment, Drainage System, Shutoff Valves, Unloading Procedures, Inspection, and Spill Kits.
Oil-Filled Mechanical/Electrical Equipment	Secondary Containment, Drainage System, Spill Kits, and SPCC Inspections. Restricted Parking locations.
Material Transfer Areas	Secondary Containment, Drainage System, Written Procedures, Spill Kits and Inspections.
HazMat Storage Building	Materials are stored inside buildings with secondary containment flooring, Spill Kits and Inspections.
Runoff Control	The Station utilizes curbs, concrete trenches, gravel, rip-rap and grates/inlets to control storm water runoff. Storm water runoff, which collects in the WWTFRP, is not used for any other purpose at the Station. The WWTFRP allows for a controlled discharge of storm water under all but the worst conditions (such as floods). General Refuse Dumpsters will be covered.

5.1 Structural BMPs

Refer to Section 4.3 & 4.4 for structural BMPs in place at this Station.

5.2 Non-Structural BMPs

The Station has Operating Procedures (OPs) that are related to storm water control management. They reduce the potential for storm water contact due to equipment failure or operational losses. The associated OPs are listed in section 5.2.1.

5.2.1 Employee Training

VA0087033, Part I, D.2.b.(6.)(b.)(vii) Employee Training. *(SWPPP Cross Reference #12)*

The positions noted in the Pollution Prevention Team with (2) are responsible for providing the storm water training. The Station has the following training that encompasses storm water management:

- New Employee Indoctrination
- Safety Inspections
- Hazard Communication Program
- Annual Storm Water Pollution Prevention

MEMORANDUM

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

NORTHERN REGIONAL OFFICE

13901 Crown Court Woodbridge, VA 22193

SUBJECT: Dominion – Gordonsville Power Station (VA0087033)

TO: Modification File

FROM: Susan Mackert

DATE: September 30, 2010

A site visit was conducted on August 31, 2010, in support of the permit modification request received on May 14, 2010. The modification was requested by the permittee to address changes in the oily wastewater collection system and to incorporate new copper limitations resulting from the Water Effects Ratio (WER) and chemical translator studies.

The new oily wastewater treatment system has two above ground oil water separators, one for each generating unit. These separators came on- line in April 2010. The two separators receive primarily the same wastewaters from each generating unit. In addition to the installation of the two above ground separators, the station has replaced the underground piping system with an above-ground system that facilitates inspection and maintenance. Both oil water separators discharge to a concrete perimeter ditch, which also receives storm water runoff from the majority of the property. The perimeter ditch enters the facility's holding pond with final discharge to the South Anna River via Outfall 001.

The permittee has requested that the discharge from the two oil water separators be treated as a single internal discharge with the outfalls designated as 102A (Unit 1 oil water separator) and 102B (Unit 2 oil water separator). The DEQ compliance tracking database does not acknowledge non-numeric outfall designations. Therefore, the proposed naming convention of Outfall 102A and Outfall 102B cannot be applied. Staff recommends the discharge from the Unit 1 oil water separator be deemed Outfall 103 (photo 1) and the discharge from the Unit 2 oil water separator be deemed Outfall 104 (photo 2). This naming convention facilitates tracking by compliance as well as participation by the facility in the electronic discharge monitoring report (eDMR) program.

The following latitude and longitude coordinates for Outfall 103 and Outfall 104 were obtained while on site. Both outfalls combine prior to discharge to the facility's retention pond (photo 3).

Outfall Coordinates			
Outfall 103		**Outfall 104**	
Latitude	38° 07'30.4" N	Latitude	38° 07'27.2" N
Longitude	78° 12'10.1" W	Longitude	78° 12'8.5" W

Because of the new treatment process described, Outfall 102 is no longer in service. The discharge location to the holding pond was capped underground in late 2009 (photo 4).

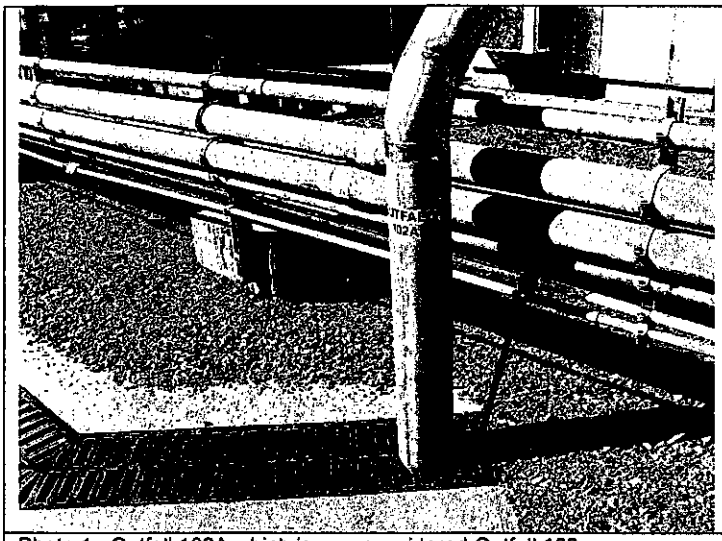


Photo 1. Outfall 102A which is now considered Outfall 103.

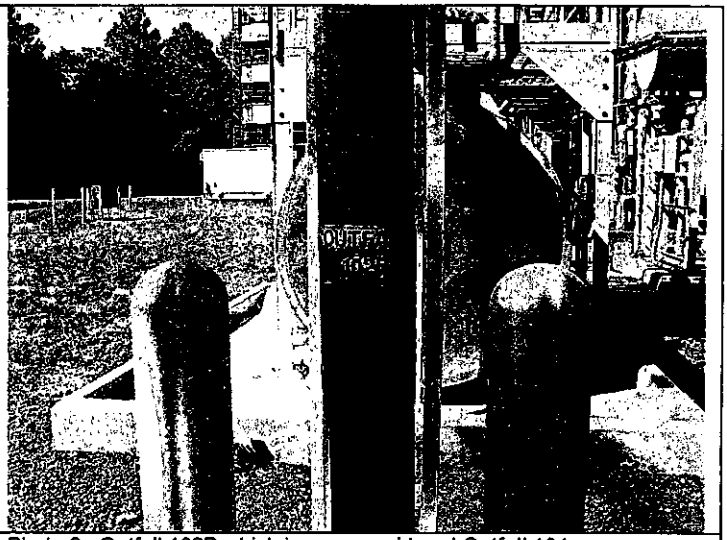


Photo 2. Outfall 102B which is now considered Outfall 104.

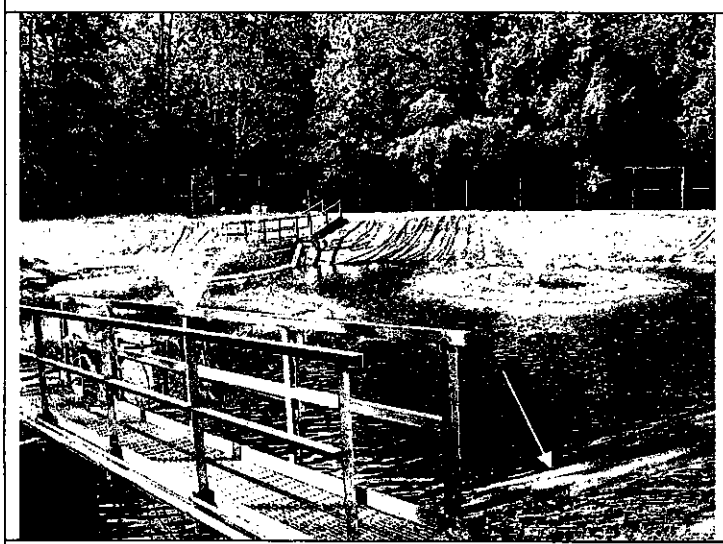


Photo 3. The arrow points to the approximate location of the combined discharge from Outfall 103 and Outfall 104 to the retention pond.

Photo 4. Closed Outfall 102.

To:	Susan Mackert
From:	Jennifer Carlson
Date:	December 10, 2012
Subject:	Planning Statement for Dominion – Gordonsville Power Station
Permit Number:	VA0087033

Information for Outfall 001:
Discharge Type: Industrial
Discharge Flow: 0.049 MGD (valved intermittent discharge)
Receiving Stream: South Anna River
Latitude / Longitude: 38° 07' 27" / -78° 12' 13"
Rivermile: 100.36
Streamcode: 8-SAR
Waterbody: VAN-F01R
Water Quality Standards: Class III, Section 3
Drainage Area: 5.1 mi^2

1. Please provide water quality monitoring information for the receiving stream segment. If there is not monitoring information for the receiving stream segment, please provide information on the nearest downstream monitoring station, including how far downstream the monitoring station is from the outfall.

'This facility discharges into the South Anna River. The DEQ water monitoring station in the receiving segment of the South Anna River, 8-SAR101.03, is located approximately 0.68 miles upstream of Outfall 001, at the Route 231 bridge crossing. The following is the water quality summary for this segment of the South Anna River, as taken from the Draft 2012 Integrated Report*:

Class III, Section 3.

DEQ ambient monitoring station 8-SAR101.03, at Route 231.

E. coli monitoring finds a bacterial impairment, resulting in an impaired classification for the recreation use. A bacteria TMDL for the South Anna River watershed has been completed and approved. The aquatic life and wildlife uses are considered fully supporting. An observed effect for the aquatic life use is noted, based on total phosphorus samples collected from 2000 to 2004. While nutrients are not assessed as there are no nutrient standards for free-flowing streams, the observed effect was noted in the 2006 Integrated Report because seven of 22 samples (31.8%) exceeded the total phosphorus screening value (0.20 mg/L) that was in place at the time. The observed effect for total phosphorus has remained in place. The fish consumption use was not assessed.

**The Draft 2012 Integrated Report (IR) has been through the public comment period and reviewed by EPA. The 2012 IR is currently being finalized and prepared for release.*

2. Does this facility discharge to a stream segment on the 303(d) list? If yes, please fill out Table A.

Yes.

Table A. 303(d) Impairment and TMDL information for the receiving stream segment

Waterbody Name	Impaired Use	Cause	TMDL completed	WLA	Basis for WLA	TMDL Schedule
Impairment Information in the Draft 2012 Integrated Report*						
South Anna River	Recreation	*E. coli*	Pamunkey River Basin Bacteria 08/02/2006	None	---	N/A

**The Draft 2012 Integrated Report (IR) has been through the public comment period and reviewed by EPA. The 2012 IR is currently being finalized and prepared for release.*

3. Are there any downstream 303(d) listed impairments that are relevant to this discharge? If yes, please fill out Table B.

Yes.

Table B. Information on Downstream 303(d) Impairments and TMDLs

Waterbody Name	Impaired Use	Cause	Distance From Outfall	TMDL completed	WLA	Basis for WLA	TMDL Schedule
Impairment Information in the Draft 2012 Integrated Report*							
South Anna River	Aquatic Life	Benthic Macroinvertebrates	1.56 miles	No	---	---	2022

**The Draft 2012 Integrated Report (IR) has been through the public comment period and reviewed by EPA. The 2012 IR is currently being finalized and prepared for release.*

4. Is there monitoring or other conditions that Planning/Assessment needs in the permit?

There is a completed downstream TMDL for the aquatic life use impairment for the Chesapeake Bay. However, the Bay TMDL and the WLAs contained within the TMDL are not addressed in this planning statement.

5. Fact Sheet Requirements – Please provide information regarding any drinking water intakes located within a 5 mile radius of the discharge point.

There are no public water supply intakes located within 5 miles of this discharge.

FRESHWATER
WATER QUALITY CRITERIA / WASTELOAD ALLOCATION ANALYSIS

Facility Name: Dominion - Gordonsville Permit No.: VA0087033

Receiving Stream: South Anna River Version: OWP Guidance Memo 00-2011 (8/24/00)

Stream Information		Stream Flows		Mixing Information		Effluent Information	
Mean Hardness (as CaCO3) =	64 mg/L	1Q10 (Annual) =	0.028 MGD	Annual - 1Q10 Mix =	100 %	Mean Hardness (as CaCO3) =	8.5 mg/L
90% Temperature (Annual) =	26 deg C	7Q10 (Annual) =	0.035 MGD	- 7Q10 Mix =	100 %	90% Temp (Annual) =	29 deg C
90% Temperature (Wet season) =	deg C	30Q10 (Annual) =	0.085 MGD	- 30Q10 Mix =	100 %	90% Temp (Wet season) =	deg C
90% Maximum pH =	6.8 SU	1Q10 (Wet season) =	0.452 MGD	Wet Season - 1Q10 Mix =	100 %	90% Maximum pH =	8 SU
10% Maximum pH =	SU	30Q10 (Wet season)	0.853 MGD	- 30Q10 Mix =	100 %	10% Maximum pH =	SU
Tier Designation (1 or 2) =	1	30Q5 =	0.149 MGD			Discharge Flow =	0.049 MGD
Public Water Supply (PWS) Y/N? =	n	Harmonic Mean =	0.639 MGD				
Trout Present Y/N? =	n						
Early Life Stages Present Y/N? =	y						

Parameter	Background	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
(ug/l unless noted)	Conc.	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Acenapthene	0	--	--	na	9.9E+02	--	--	na	4.0E+03	--	--	--	--	--	--	--	--	--	--	na	4.0E+03
Acrolein	0	--	--	na	9.3E+00	--	--	na	3.8E+01	--	--	--	--	--	--	--	--	--	--	na	3.8E+01
Acrylonitrile [C]	0	--	--	na	2.5E+00	--	--	na	3.5E+01	--	--	--	--	--	--	--	--	--	--	na	3.5E+01
Aldrin [C]	0	3.0E+00	--	na	5.0E-04	4.7E+00	--	na	7.0E-03	--	--	--	--	--	--	--	--	4.7E+00	--	na	7.0E-03
Ammonia-N (mg/l) (Yearly)	0	2.97E+01	2.64E+00	na	--	4.67E+01	7.23E+00	na	--	--	--	--	--	--	--	--	--	4.67E+01	7.23E+00	na	--
Ammonia-N (mg/l) (High Flow)	0	4.08E+01	6.26E+00	na	--	4.18E+02	1.15E+02	na	--	--	--	--	--	--	--	--	--	4.18E+02	1.15E+02	na	--
Anthracene	0	--	--	na	4.0E+04	--	--	na	1.6E+05	--	--	--	--	--	--	--	--	--	--	na	1.6E+05
Antimony	0	--	--	na	6.4E+02	--	--	na	2.6E+03	--	--	--	--	--	--	--	--	--	--	na	2.6E+03
Arsenic	0	3.4E+02	1.5E+02	na	--	5.3E+02	2.6E+02	na	--	--	--	--	--	--	--	--	--	5.3E+02	2.6E+02	na	--
Barium	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Benzene [C]	0	--	--	na	5.1E+02	--	--	na	7.2E+03	--	--	--	--	--	--	--	--	--	--	na	7.2E+03
Benzidine [C]	0	--	--	na	2.0E-03	--	--	na	2.8E-02	--	--	--	--	--	--	--	--	--	--	na	2.8E-02
Benzo (a) anthracene [C]	0	--	--	na	1.8E-01	--	--	na	2.5E+00	--	--	--	--	--	--	--	--	--	--	na	2.5E+00
Benzo (b) fluoranthene [C]	0	--	--	na	1.8E-01	--	--	na	2.5E+00	--	--	--	--	--	--	--	--	--	--	na	2.5E+00
Benzo (k) fluoranthene [C]	0	--	--	na	1.8E-01	--	--	na	2.5E+00	--	--	--	--	--	--	--	--	--	--	na	2.5E+00
Benzo (a) pyrene [C]	0	--	--	na	1.8E-01	--	--	na	2.5E+00	--	--	--	--	--	--	--	--	--	--	na	2.5E+00
Bis2-Chloroethyl Ether [C]	0	--	--	na	5.3E+00	--	--	na	7.4E+01	--	--	--	--	--	--	--	--	--	--	na	7.4E+01
Bis2-Chloroisopropyl Ether	0	--	--	na	6.5E+04	--	--	na	2.6E+05	--	--	--	--	--	--	--	--	--	--	na	2.6E+05
Bis 2-Ethylhexyl Phthalate [C]	0	--	--	na	2.2E+01	--	--	na	3.1E+02	--	--	--	--	--	--	--	--	--	--	na	3.1E+02
Bromoform [C]	0	--	--	na	1.4E+03	--	--	na	2.0E+04	--	--	--	--	--	--	--	--	--	--	na	2.0E+04
Butylbenzylphthalate	0	--	--	na	1.9E+03	--	--	na	7.7E+03	--	--	--	--	--	--	--	--	--	--	na	7.7E+03
Cadmium	0	9.6E-01	4.6E-01	na	--	1.5E+00	7.9E-01	na	--	--	--	--	--	--	--	--	--	1.5E+00	7.9E-01	na	--
Carbon Tetrachloride [C]	0	--	--	na	1.6E+01	--	--	na	2.2E+02	--	--	--	--	--	--	--	--	--	--	na	2.2E+02
Chlordane [C]	0	2.4E+00	4.3E-03	na	8.1E-03	3.8E+00	7.4E-03	na	1.1E-01	--	--	--	--	--	--	--	--	3.8E+00	7.4E-03	na	1.1E-01
Chloride	0	8.6E+05	2.3E+05	na	--	1.4E+06	3.9E+05	na	--	--	--	--	--	--	--	--	--	1.4E+06	3.9E+05	na	--
TRC	0	1.9E+01	1.1E+01	na	--	3.0E+01	1.9E+01	na	--	--	--	--	--	--	--	--	--	3.0E+01	1.9E+01	na	--
Chlorobenzene	0	--	--	na	1.6E+03	--	--	na	6.5E+03	--	--	--	--	--	--	--	--	--	--	na	6.5E+03

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Chlorodibromomethane[C]	0	--	--	na	1.3E+02	--	--	na	1.8E+03	--	--	--	--	--	--	--	--	--	--	na	1.8E+03
Chloroform	0	--	--	na	1.1E+04	--	--	na	4.4E+04	--	--	--	--	--	--	--	--	--	--	na	4.4E+04
2-Chloronaphthalene	0	--	--	na	1.6E+03	--	--	na	6.5E+03	--	--	--	--	--	--	--	--	--	--	na	6.5E+03
2-Chlorophenol	0	--	--	na	1.5E+02	--	--	na	6.1E+02	--	--	--	--	--	--	--	--	--	--	na	6.1E+02
Chlorpyrifos	0	8.3E-02	4.1E-02	na	--	1.3E-01	7.0E-02	na	--	--	--	--	--	--	--	--	--	1.3E-01	7.0E-02	na	--
Chromium III	0	2.0E+02	2.9E+01	na	--	3.2E+02	4.9E+01	na	--	--	--	--	--	--	--	--	--	3.2E+02	4.9E+01	na	--
Chromium VI	0	1.6E+01	1.1E+01	na	--	2.5E+01	1.9E+01	na	--	--	--	--	--	--	--	--	--	2.5E+01	1.9E+01	na	--
Chromium, Total	0	--	--	1.0E+02	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Chrysene[C]	0	--	--	na	1.8E-02	--	--	na	2.5E-01	--	--	--	--	--	--	--	--	--	--	na	2.5E-01
Copper	0	4.1E+00	3.3E+00	na	--	6.5E+00	5.7E+00	na	--	--	--	--	--	--	--	--	--	6.5E+00	5.7E+00	na	--
Cyanide, Free	0	2.2E+01	5.2E+00	na	1.6E+04	3.5E+01	8.9E+00	na	6.5E+04	--	--	--	--	--	--	--	--	3.5E+01	8.9E+00	na	6.5E+04
DDD[C]	0	--	--	na	3.1E-03	--	--	na	4.4E-02	--	--	--	--	--	--	--	--	--	--	na	4.4E-02
DDE[C]	0	--	--	na	2.2E-03	--	--	na	3.1E-02	--	--	--	--	--	--	--	--	--	--	na	3.1E-02
DDT[C]	0	1.1E+00	1.0E-03	na	2.2E-03	1.7E+00	1.7E-03	na	3.1E-02	--	--	--	--	--	--	--	--	1.7E+00	1.7E-03	na	3.1E-02
Demeton	0	--	1.0E-01	na	--	--	1.7E-01	na	--	--	--	--	--	--	--	--	--	--	1.7E-01	na	--
Diazinon	0	1.7E-01	1.7E-01	na	--	2.7E-01	2.9E-01	na	--	--	--	--	--	--	--	--	--	2.7E-01	2.9E-01	na	--
Dibenz(a,h)anthracene[C]	0	--	--	na	1.8E-01	--	--	na	2.5E+00	--	--	--	--	--	--	--	--	--	--	na	2.5E+00
1,2-Dichlorobenzene	0	--	--	na	1.3E+03	--	--	na	5.3E+03	--	--	--	--	--	--	--	--	--	--	na	5.3E+03
1,3-Dichlorobenzene	0	--	--	na	9.6E+02	--	--	na	3.9E+03	--	--	--	--	--	--	--	--	--	--	na	3.9E+03
1,4-Dichlorobenzene	0	--	--	na	1.9E+02	--	--	na	7.7E+02	--	--	--	--	--	--	--	--	--	--	na	7.7E+02
3,3-Dichlorobenzidine[C]	0	--	--	na	2.8E-01	--	--	na	3.9E+00	--	--	--	--	--	--	--	--	--	--	na	3.9E+00
Dichlorobromomethane[C]	0	--	--	na	1.7E+02	--	--	na	2.4E+03	--	--	--	--	--	--	--	--	--	--	na	2.4E+03
1,2-Dichloroethane[C]	0	--	--	na	3.7E+02	--	--	na	5.2E+03	--	--	--	--	--	--	--	--	--	--	na	5.2E+03
1,1-Dichloroethylene	0	--	--	na	7.1E+03	--	--	na	2.9E+04	--	--	--	--	--	--	--	--	--	--	na	2.9E+04
1,2-trans-dichloroethylene	0	--	--	na	1.0E+04	--	--	na	4.0E+04	--	--	--	--	--	--	--	--	--	--	na	4.0E+04
2,4-Dichlorophenol	0	--	--	na	2.9E+02	--	--	na	1.2E+03	--	--	--	--	--	--	--	--	--	--	na	1.2E+03
2,4-Dichlorophenoxy acetic acid (2,4-D)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
1,2-Dichloropropane[C]	0	--	--	na	1.5E+02	--	--	na	2.1E+03	--	--	--	--	--	--	--	--	--	--	na	2.1E+03
1,3-Dichloropropene[C]	0	--	--	na	2.1E+02	--	--	na	2.9E+03	--	--	--	--	--	--	--	--	--	--	na	2.9E+03
Dieldrin[C]	0	2.4E-01	5.6E-02	na	5.4E-04	3.8E-01	9.6E-02	na	7.6E-03	--	--	--	--	--	--	--	--	3.8E-01	9.6E-02	na	7.6E-03
Diethyl Phthalate	0	--	--	na	4.4E+04	--	--	na	1.8E+05	--	--	--	--	--	--	--	--	--	--	na	1.8E+05
2,4-Dimethylphenol	0	--	--	na	8.5E+02	--	--	na	3.4E+03	--	--	--	--	--	--	--	--	--	--	na	3.4E+03
Dimethyl Phthalate	0	--	--	na	1.1E+06	--	--	na	4.4E+06	--	--	--	--	--	--	--	--	--	--	na	4.4E+06
Di-n-Butyl Phthalate	0	--	--	na	4.5E+03	--	--	na	1.8E+04	--	--	--	--	--	--	--	--	--	--	na	1.8E+04
2,4 Dinitrophenol	0	--	--	na	5.3E+03	--	--	na	2.1E+04	--	--	--	--	--	--	--	--	--	--	na	2.1E+04
2-Methyl-4,6-Dinitrophenol	0	--	--	na	2.8E+02	--	--	na	1.1E+03	--	--	--	--	--	--	--	--	--	--	na	1.1E+03
2,4-Dinitrotoluene[C]	0	--	--	na	3.4E+01	--	--	na	4.8E+02	--	--	--	--	--	--	--	--	--	--	na	4.8E+02
Dioxin 2,3,7,8-tetrachlorodibenzo-p-dioxin	0	--	--	na	5.1E-08	--	--	na	2.1E-07	--	--	--	--	--	--	--	--	--	--	na	2.1E-07
1,2-Diphenylhydrazine[C]	0	--	--	na	2.0E+00	--	--	na	2.8E+01	--	--	--	--	--	--	--	--	--	--	na	2.8E+01
Alpha-Endosulfan	0	2.2E-01	5.6E-02	na	8.9E+01	3.5E-01	9.6E-02	na	3.6E+02	--	--	--	--	--	--	--	--	3.5E-01	9.6E-02	na	3.6E+02
Beta-Endosulfan	0	2.2E-01	5.6E-02	na	8.9E+01	3.5E-01	9.6E-02	na	3.6E+02	--	--	--	--	--	--	--	--	3.5E-01	9.6E-02	na	3.6E+02
Alpha + Beta Endosulfan	0	2.2E-01	5.6E-02	--	--	3.5E-01	9.6E-02	--	--	--	--	--	--	--	--	--	--	3.5E-01	9.6E-02	--	--
Endosulfan Sulfate	0	--	--	na	8.9E+01	--	--	na	3.6E+02	--	--	--	--	--	--	--	--	--	--	na	3.6E+02
Endrin	0	8.6E-02	3.6E-02	na	6.0E-02	1.4E-01	6.2E-02	na	2.4E-01	--	--	--	--	--	--	--	--	1.4E-01	6.2E-02	na	2.4E-01
Endrin Aldehyde	0	--	--	na	3.0E-01	--	--	na	1.2E+00	--	--	--	--	--	--	--	--	--	--	na	1.2E+00

Parameter	Background	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
(ug/l unless noted)	Conc.	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Ethylbenzene	0	--	--	na	2.1E+03	--	--	na	8.5E+03	--	--	--	--	--	--	--	--	--	--	na	8.5E+03
Fluoranthene	0	--	--	na	1.4E+02	--	--	na	5.7E+02	--	--	--	--	--	--	--	--	--	--	na	5.7E+02
Fluorene	0	--	--	na	5.3E+03	--	--	na	2.1E+04	--	--	--	--	--	--	--	--	--	--	na	2.1E+04
Foaming Agents	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Guthion	0	--	1.0E-02	na	--	--	1.7E-02	na	--	--	--	--	--	--	--	--	--	--	1.7E-02	na	--
Heptachlor [c]	0	5.2E-01	3.8E-03	na	7.9E-04	8.2E-01	6.5E-03	na	1.1E-02	--	--	--	--	--	--	--	--	8.2E-01	6.5E-03	na	1.1E-02
Heptachlor Epoxide[c]	0	5.2E-01	3.8E-03	na	3.9E-04	8.2E-01	6.5E-03	na	5.5E-03	--	--	--	--	--	--	--	--	8.2E-01	6.5E-03	na	5.5E-03
Hexachlorobenzene[c]	0	--	--	na	2.9E-03	--	--	na	4.1E-02	--	--	--	--	--	--	--	--	--	--	na	4.1E-02
Hexachlorobutadiene[c]	0	--	--	na	1.8E+02	--	--	na	2.5E+03	--	--	--	--	--	--	--	--	--	--	na	2.5E+03
Hexachlorocyclohexane Alpha-BHC[c]	0	--	--	na	4.9E-02	--	--	na	6.9E-01	--	--	--	--	--	--	--	--	--	--	na	6.9E-01
Hexachlorocyclohexane Beta-BHC[c]	0	--	--	na	1.7E-01	--	--	na	2.4E+00	--	--	--	--	--	--	--	--	--	--	na	2.4E+00
Hexachlorocyclohexane Gamma-BHC[c] (Lindane)	0	9.5E-01	na	na	1.8E+00	1.5E+00	--	na	2.5E+01	--	--	--	--	--	--	--	--	1.5E+00	--	na	2.5E+01
Hexachlorocyclopentadiene	0	--	--	na	1.1E+03	--	--	na	4.4E+03	--	--	--	--	--	--	--	--	--	--	na	4.4E+03
Hexachloroethane[c]	0	--	--	na	3.3E+01	--	--	na	4.6E+02	--	--	--	--	--	--	--	--	--	--	na	4.6E+02
Hydrogen Sulfide	0	--	2.0E+00	na	--	--	3.4E+00	na	--	--	--	--	--	--	--	--	--	--	3.4E+00	na	--
Indeno (1,2,3-cd) pyrene [c]	0	--	--	na	1.8E-01	--	--	na	2.5E+00	--	--	--	--	--	--	--	--	--	--	na	2.5E+00
Iron	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Isophorone[c]	0	--	--	na	9.6E+03	--	--	na	1.3E+05	--	--	--	--	--	--	--	--	--	--	na	1.3E+05
Kepone	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Lead	0	2.4E+01	3.1E+00	na	--	3.8E+01	5.3E+00	na	--	--	--	--	--	--	--	--	--	3.8E+01	5.3E+00	na	--
Malathion	0	--	1.0E-01	na	--	--	1.7E-01	na	--	--	--	--	--	--	--	--	--	--	1.7E-01	na	--
Manganese	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Mercury	0	1.4E+00	7.7E-01	--	--	2.2E+00	1.3E+00	--	--	--	--	--	--	--	--	--	--	2.2E+00	1.3E+00	--	--
Methyl Bromide	0	--	--	na	1.5E+03	--	--	na	6.1E+03	--	--	--	--	--	--	--	--	--	--	na	6.1E+03
Methylene Chloride [c]	0	--	--	na	5.9E+03	--	--	na	8.3E+04	--	--	--	--	--	--	--	--	--	--	na	8.3E+04
Methoxychlor	0	--	3.0E-02	na	--	--	5.1E-02	na	--	--	--	--	--	--	--	--	--	--	5.1E-02	na	--
Mirex	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Nickel	0	6.3E+01	7.7E+00	na	4.6E+03	1.0E+02	1.3E+01	na	1.9E+04	--	--	--	--	--	--	--	--	1.0E+02	1.3E+01	na	1.9E+04
Nitrate (as N)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Nitrobenzene	0	--	--	na	6.9E+02	--	--	na	2.8E+03	--	--	--	--	--	--	--	--	--	--	na	2.8E+03
N-Nitrosodimethylamine[c]	0	--	--	na	3.0E+01	--	--	na	4.2E+02	--	--	--	--	--	--	--	--	--	--	na	4.2E+02
N-Nitrosodiphenylamine[c]	0	--	--	na	6.0E+01	--	--	na	8.4E+02	--	--	--	--	--	--	--	--	--	--	na	8.4E+02
N-Nitrosodi-n-propylamine[c]	0	--	--	na	5.1E+00	--	--	na	7.2E+01	--	--	--	--	--	--	--	--	--	--	na	7.2E+01
Nonylphenol	0	2.8E+01	6.6E+00	--	--	4.4E+01	1.1E+01	na	--	--	--	--	--	--	--	--	--	4.4E+01	1.1E+01	na	--
Parathion	0	6.5E-02	1.3E-02	na	--	1.0E-01	2.2E-02	na	--	--	--	--	--	--	--	--	--	1.0E-01	2.2E-02	na	--
PCB Total[c]	0	--	1.4E-02	na	6.4E-04	--	2.4E-02	na	9.0E-03	--	--	--	--	--	--	--	--	--	2.4E-02	na	9.0E-03
Pentachlorophenol [c]	0	7.7E-03	5.9E-03	na	3.0E+01	1.2E-02	1.0E-02	na	4.2E+02	--	--	--	--	--	--	--	--	1.2E-02	1.0E-02	na	4.2E+02
Phenol	0	--	--	na	8.6E+05	--	--	na	3.5E+06	--	--	--	--	--	--	--	--	--	--	na	3.5E+06
Pyrene	0	--	--	na	4.0E+03	--	--	na	1.6E+04	--	--	--	--	--	--	--	--	--	--	na	1.6E+04
Radionuclides	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Gross Alpha Activity (pCi/L)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Beta and Photon Activity (mrem/yr)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Radium 226 + 228 (pCi/L)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Uranium (ug/l)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--

Parameter	Background	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
(ug/l unless noted)	Conc.	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Selenium, Total Recoverable	0	2.0E+01	5.0E+00	na	4.2E+03	3.1E+01	8.6E+00	na	1.7E+04	--	--	--	--	--	--	--	--	3.1E+01	8.6E+00	na	1.7E+04
Silver	0	4.0E-01	--	na	--	6.3E-01	--	na	--	--	--	--	--	--	--	--	--	6.3E-01	--	na	--
Sulfate	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
1,1,2,2-Tetrachloroethane[C]	0	--	--	na	4.0E+01	--	--	na	5.6E+02	--	--	--	--	--	--	--	--	--	--	na	5.6E+02
Tetrachloroethylene[C]	0	--	--	na	3.3E+01	--	--	na	4.6E+02	--	--	--	--	--	--	--	--	--	--	na	4.6E+02
Thallium	0	--	--	na	4.7E-01	--	--	na	1.9E+00	--	--	--	--	--	--	--	--	--	--	na	1.9E+00
Toluene	0	--	--	na	6.0E+03	--	--	na	2.4E+04	--	--	--	--	--	--	--	--	--	--	na	2.4E+04
Total dissolved solids	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Toxaphene [C]	0	7.3E-01	2.0E-04	na	2.8E-03	1.1E+00	3.4E-04	na	3.9E-02	--	--	--	--	--	--	--	--	1.1E+00	3.4E-04	na	3.9E-02
Tributyltin	0	4.6E-01	7.2E-02	na	--	7.2E-01	1.2E-01	na	--	--	--	--	--	--	--	--	--	7.2E-01	1.2E-01	na	--
1,2,4-Trichlorobenzene	0	--	--	na	7.0E+01	--	--	na	2.8E+02	--	--	--	--	--	--	--	--	--	--	na	2.8E+02
1,1,2-Trichloroethane[C]	0	--	--	na	1.6E+02	--	--	na	2.2E+03	--	--	--	--	--	--	--	--	--	--	na	2.2E+03
Trichloroethylene [C]	0	--	--	na	3.0E+02	--	--	na	4.2E+03	--	--	--	--	--	--	--	--	--	--	na	4.2E+03
2,4,6-Trichlorophenol [C]	0	--	--	na	2.4E+01	--	--	na	3.4E+02	--	--	--	--	--	--	--	--	--	--	na	3.4E+02
2-(2,4,5-Trichlorophenoxy) propionic acid (Silvex)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Vinyl Chloride[C]	0	--	--	na	2.4E+01	--	--	na	3.4E+02	--	--	--	--	--	--	--	--	--	--	na	3.4E+02
Zinc	0	4.1E+01	4.5E+01	na	2.6E+04	6.4E+01	7.6E+01	na	1.1E+05	--	--	--	--	--	--	--	--	6.4E+01	7.6E+01	na	1.1E+05

Notes:

1. All concentrations expressed as micrograms/liter (ug/l), unless noted otherwise
2. Discharge flow is highest monthly average or Form 2C maximum for Industries and design flow for Municipals
3. Metals measured as Dissolved, unless specified otherwise
4. "C" indicates a carcinogenic parameter
5. Regular WLAs are mass balances (minus background concentration) using the % of stream flow entered above under Mixing Information.
   Antidegradation WLAs are based upon a complete mix.
6. Antideg. Baseline = (0.25(WQC - background conc.) + background conc.) for acute and chronic
   = (0.1(WQC - background conc.) + background conc.) for human health
7. WLAs established at the following stream flows: 1Q10 for Acute, 30Q10 for Chronic Ammonia, 7Q10 for Other Chronic, 30Q5 for Non-carcinogens and Harmonic Mean for Carcinogens. To apply mixing ratios from a model set the stream flow equal to (mixing ratio - 1), effluent flow equal to 1 and 100% mix.

Metal	Target Value (SSTV)
Antimony	2.6E+03
Arsenic	1.5E+02
Barium	na
Cadmium	4.7E-01
Chromium III	3.0E+01
Chromium VI	1.0E+01
Copper	2.6E+00
Iron	na
Lead	3.2E+00
Manganese	na
Mercury	7.9E-01
Nickel	7.9E+00
Selenium	5.1E+00
Silver	2.5E-01
Zinc	2.6E+01

Note: do not use QL's lower than the minimum QL's provided in agency guidance

DMR QA/QC

Permit #:VA0087033 Facility:Dominion - Gordonsville Power Station

Due	Outfall	Parameter Description	CONC MIN (S.U.)	Lim Min (S.U.)	CONC MAX (S.U.)	Lim Max (S.U.)
10-Apr-08	001	pH	7.9	6.0	7.9	9.0
10-May-08	001	pH	7.6	6.0	7.6	9.0
10-Jun-08	001	pH	7.0	6.0	7.0	9.0
10-Jul-08	001	pH	7.0	6.0	7.0	9.0
10-Aug-08	001	pH	7.0	6.0	7.0	9.0
10-Sep-08	001	pH	7.4	6.0	7.4	9.0
10-Oct-08	001	pH	7.1	6.0	7.1	9.0
10-Nov-08	001	pH	9.0	6.0	9.0	9.0
10-Dec-08	001	pH	7.6	6.0	7.6	9.0
10-Jan-09	001	pH	7.8	6.0	7.8	9.0
10-Feb-09	001	pH	7.7	6.0	7.7	9.0
10-Mar-09	001	pH	7.8	6.0	7.8	9.0
10-Apr-09	001	pH	8.3	6.0	8.3	9.0
10-May-09	001	pH	6.4	6.0	6.4	9.0
10-Jun-09	001	pH	8.0	6.0	8.0	9.0
10-Jul-09	001	pH	7.4	6.0	7.4	9.0
10-Aug-09	001	pH	7.0	6.0	8.7	9.0
10-Sep-09	001	pH	6.7	6.0	8.3	9.0
10-Oct-09	001	pH	7.1	6.0	8.0	9.0
10-Nov-09	001	pH	6.8	6.0	6.8	9.0
10-Dec-09	001	pH	7.0	6.0	7.0	9.0
10-Jan-10	001	pH	7.0	6.0	7.0	9.0
10-Feb-10	001	pH	6.9	6.0	6.9	9.0
10-Mar-10	001	pH	7.3	6.0	7.3	9.0
10-Apr-10	001	pH	6.9	6.0	6.9	9.0
10-May-10	001	pH	8.4	6.0	8.4	9.0
10-Jun-10	001	pH	7.7	6.0	7.7	9.0
10-Jul-10	001	pH	7.0	6.0	7.0	9.0

DMR QA/QC

Permit #:VA0087033 Facility:Dominion - Gordonsville Power Station

Due	Outfall	Parameter Description	CONC MIN (S.U.)	Lim Min (S.U.)	CONC MAX (S.U.)	Lim Max (S.U.)
10-Aug-10	001	pH	6.9	6.0	6.9	9.0
10-Sep-10	001	pH	7.1	6.0	7.1	9.0
10-Oct-10	001	pH	7.5	6.0	7.5	9.0
10-Nov-10	001	pH	6.8	6.0	6.8	9.0
10-Dec-10	001	pH	8.1	6.0	8.1	9.0
10-Jan-11	001	pH	7.8	6.0	7.8	9.0
10-Feb-11	001	pH	7.3	6.0	7.3	9.0
10-Mar-11	001	pH	7.7	6.0	7.7	9.0
10-Apr-11	001	pH	7.6	6.0	7.6	9.0
10-May-11	001	pH	6.9	6.0	7.1	9.0
10-Jun-11	001	pH	7.3	6.0	7.3	9.0
10-Jul-11	001	pH	6.1	6.0	6.1	9.0
10-Aug-11	001	pH	6.8	6.0	6.8	9.0
10-Sep-11	001	pH	6.8	6.0	6.8	9.0
10-Oct-11	001	pH	7.1	6.0	7.1	9.0
10-Nov-11	001	pH	6.7	6.0	6.7	9.0
10-Dec-11	001	pH	6.2	6.0	6.2	9.0
10-Jan-12	001	pH	6.3	6.0	6.3	9.0
10-Feb-12	001	pH	6.3	6.0	6.3	9.0
10-Mar-12	001	pH	6.6	6.0	6.6	9.0
10-Apr-12	001	pH	6.9	6.0	6.9	9.0
10-May-12	001	pH	6.8	6.0	6.8	9.0
10-Jun-12	001	pH	6.1	6.0	6.1	9.0
10-Jul-12	001	pH	7.1	6.0	7.1	9.0
10-Aug-12	001	pH	7.9	6.0	7.9	9.0

90% pH = 8.0 S.U.

DMR QA/QC

Permit #:VA0087033 Facility:Dominion - Gordonsville Power Station

Due	Outfall	Parameter Description	CONC MAX(°C)	Lim Max(°C)
10-Apr-08	001	TEMPERATURE, MAY-OCT	6.3	32.0
10-May-08	001	TEMPERATURE, MAY-OCT	12	32.0
10-Jun-08	001	TEMPERATURE, MAY-OCT	21	32.0
10-Jul-08	001	TEMPERATURE, MAY-OCT	29	32.0
10-Aug-08	001	TEMPERATURE, MAY-OCT	29	32.0
10-Sep-08	001	TEMPERATURE, MAY-OCT	26	32.0
10-Oct-08	001	TEMPERATURE, MAY-OCT	2.0	32.0
10-Nov-08	001	TEMPERATURE, MAY-OCT	23	32.0
10-Jan-09	001	TEMPERATURE, MAY-OCT	3	32.0
10-Feb-09	001	TEMPERATURE, MAY-OCT	1	32.0
10-Mar-09	001	TEMPERATURE, MAY-OCT	5	32.0
10-May-09	001	TEMPERATURE, MAY-OCT	13	32.0
10-Jun-09	001	TEMPERATURE, MAY-OCT	18	32.0
10-Jul-09	001	TEMPERATURE, MAY-OCT	27	32.0
10-Aug-09	001	TEMPERATURE, MAY-OCT	27	32.0
10-Sep-09	001	TEMPERATURE, MAY-OCT	28	32.0
10-Oct-09	001	TEMPERATURE, MAY-OCT	24	32.0
10-Nov-09	001	TEMPERATURE, MAY-OCT	17	32.0
10-Jun-10	001	TEMPERATURE, MAY-OCT	25	32.0
10-Jul-10	001	TEMPERATURE, MAY-OCT	25	32.0
10-Aug-10	001	TEMPERATURE, MAY-OCT	27	32.0
10-Sep-10	001	TEMPERATURE, MAY-OCT	28	32.0
10-Oct-10	001	TEMPERATURE, MAY-OCT	28	32.0
10-Nov-10	001	TEMPERATURE, MAY-OCT	13	32.0
10-Jun-11	001	TEMPERATURE, MAY-OCT	15.7	32.0
10-Jul-11	001	TEMPERATURE, MAY-OCT	28.5	32.0
10-Aug-11	001	TEMPERATURE, MAY-OCT	30.6	32.0

DMR QA/QC
Permit #:VA0087033 Facility:Dominion - Gordonsville Power Station

Due	Outfall	Parameter Description	CONC MAX(°C)	Lim Max(°C)
10-Sep-11	001	TEMPERATURE, MAY-OCT	31.1	32.0
10-Oct-11	001	TEMPERATURE, MAY-OCT	22.7	32.0
10-Nov-11	001	TEMPERATURE, MAY-OCT	18.0	32.0
10-Jun-12	001	TEMPERATURE, MAY-OCT	21.9	32.0
10-Jul-12	001	TEMPERATURE, MAY-OCT	26.8	32.0
10-Aug-12	001	TEMPERATURE, MAY-OCT	31.2	32.0

90%Temperature = 29°C

Water Effects Ratio (WER)
Chemistry Results

Parameter	Field Sampl	Field Sample	Lab Sample	Field Sample	Lab Sample
Holding Pond/Outfall 001	Pond 6/8/200	8/17/2009	8/19/2009	9/21/2009	9/23/2009
pH	7.81	7.11	6.75	7.05	6.7
Hardness PPM	49.1	9.43	25	6.66	24
DOC, PPM	5.4	9.5	9.5	5.8	
TOC, PPM	4.9	8.6	8.9	7.4	
TSS, PPM	15.6	20.2	15.5	14.3	6
Total Copper (EPA 200.8)			22.9	10.2	11
Dissolved Copper (EPA 200.8)			10.5	4.45	3.96
South Anna River	6/8/2009	8/17/2009	8/19/2009	9/21/2009	9/23/2009
pH	7.32	6.5	7.14	6.65	7.36
Hardness PPM	18.7	74.2	64	82.4	82
DOC, PPM	4.0	5.6	4.2	4.3	
TOC, PPM	3.5	5.2	4.5	4.2	
TSS, PPM	11.8	3.51	1.1	9.38	2.6
Total Copper (EPA 200.8)			0.31	0.522	0.43
Dissolved Copper (EPA 200.8)			<0.30	<0.30	<0.30
SDW Mix	6/8/2009	8/17/2009	8/19/2009	9/21/2009	9/23/2009
pH		6.83	7.3	6.87	7.17
Hardness PPM		34.9	42	35.6	38
P Alk as CaCO3, PPM			0		0
MO Alk. As CaCOM, PPM			33.9		39.12
Chloride as Cl, PPM			3		3.43
Sulfate as SO4, PPM			1.44		2.02
DOC, PPM			7.7		4.20
TOC, PPM			7.3		4.20
TSS, PPM		16.2	11.4	11.6	5
Total Copper (EPA 200.8)		14.30	11.9	6.50	4.82
Dissolved Copper (EPA 200.8)		6.75	6.03	2.69	2.53
Calcium as Ca, PPM			7.1		7.9
Magnesium as Mg, PPM			2.1		2.15
Sodium as Na, PPM			6		6.1
Potassium as K, PPM			0.61		0.68
Lab Water	6/8/2009	8/17/2009	8/19/2009	9/21/2009	9/23/2009
pH	7.69		7.83		7.51

Water Effects Ratio (WER)
Chemistry Results

Hardness PPM	40		42		42
DOC, PPM			1.2		1.2
TOC, PPM			1.3		1.5
TSS, PPM			<1		<1
Total Copper (EPA 200.8)			<0.30		<0.30
Dissolved Copper (EPA 200.8)			<0.30		<0.30

NOTES:

1. Field samples preserved or analyzed in field. Lab samples preserved after delivery to CBI and analyzed by CBI or DOM

3. Differences between ESS and CBI hardness values for 001 possibly due to increase in soluble Ca and Mg during longer (2-4 d) storage of acid-preserved samples by CBI. Progressively smaller differences seen between mix and SAR samples. QC data from both labs was acceptable. A second analysis ofCBI 8/19 001 sample yield similar value (26 mg/l)

4. Contaminated TOC & DOC samples in WER2; Values for SDW and lab water are from re-analyses of archived samples. Archived SDW sample values agree well with values calculated from SAR and 001 field samples (5.2 mg/l DOC, 6.2 mg/l TOC) See Attachment 5b for additional information.

Reporting limit <0.30 but reported as 0.226

Metals Translator
Sample Results

Parameter	Results										
Outfall 001	7/8/2009	7/13/2009	7/21/2009	7/28/2009	8/3/2009	8/11/2009	8/17/2009	8/24/2009	9/1/2009	9/14/2009	9/21/2009
DO, mg/l	7.69	8.11	8.9	8.3	8.34	6.98	7.46	8.67	7.25	8.83	7.08
Temp	23.8	25.9	21.5	26.8	26	28.3	26.8	27.2	23.8	22.3	21.5
TRC, mg/l	0.00	0.06	0.03	0.01	0.00	0.04	0.00	0.00	0.00	0	0.00
Conductivity (uS)	32.1	46.2	31.9	36	37.2	33.6	48.5	31.3	59.1	60.9	38.2
pH	6.98	7.82	8.69	8.65	7.95	6.68	7.11	8.32	7.96	7.26	7.05
Hardness	11.40	9.58	10.00	10.50	8.69	6.8	9.43	9.52	4.95	6.45	6.66
TPH	<.500	<.500	<.500	<.500	<.500	<.500	0.786	<.500	<.500	<.500	<.500
TSS, mg/l	19.2	19.3	21.3	29	28.1	27.9	20.2	23.3	17.3	16.7	14.3
P Alk as CaCO3, PPM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MO Alk. As CaCOM, PPM	23.62	11.26	26.48	36.28	38.78	15.76	40.28	27.6	24.88	20.22	15.52
Chloride as Cl, PPM	0.30	0.3	0.27	0.25	0.27	0.22	0.52	0.51	0.30	0.34	0.35
Sulfate as SO4, PPM	3.72	7.69	4.90	3.83	2.10	1.21	1.58	3.70	13.95	4.00	1.82
DOC, PPM		3.9	4.5	5.4	6.9	6.6	9.5	10.0	9.7	8.5	5.8
TOC, PPM	4.8	5.1	5	5.4	7.7	7.1	8.6	9.9	10.1	12.5	7.4
Total Copper (SM18 3113B)	19.0										
Calcium as Ca, PPM	1.98	2.69	2.32	1.93	1.6	1.14	1.49	2.34	0.98	1.26	1.09
Magnesium as Mg, PPM	0.21	0.33	0.28	0.29	0.19	0.12	0.21	0.21	0.11	0.14	0.17
Sodium as Na, PPM	2.6	3.2	3.5	3.5	4.5	5.4	7.3	11.7	12.7	12.9	7.3
Potassium as K, PPM	0.77	1.18	0.8	0.6	0.61	0.37	0.32	1.33	0.47	0.3	0.21
Dissolved Copper (SM18 3113B)	8.00										
South Anna River	7/8/2009	7/13/2009	7/21/2009	7/28/2009	8/3/2009	8/11/2009	8/17/2009	8/24/2009	9/1/2009	9/14/2009	9/21/2009
DO, mg/l	5.95	4.71	5.35	6.36	5.31	3.03	4.00	5.79	3.61	2.42	4.69
Temp	22.4	22.8	21.9	26	25.1	26.2	25.1	23.4	19.1	19.2	19.1
TRC, mg/l	0.02	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
Conductivity (uS)	108.6	102.1	120.5	249.6	159.2	176.2	149.9	138.8	182.3	133.2	139.4
pH	6.85	6.56	6.69	6.67	6.8	6.57	6.5	6.47	6.44	6	6.65
Hardness	61.6	45.6	54.3	57.1	54.1	66.7	74.2	65.4	79.1	77.0	82.4
TPH	<.500	<.500	<.500	<.500	<.500	<.500	0.84	<.500	<.500	<.500	<.500
TSS, mg/l	16.80	18.30	10.70	6.60	7.00	3.70	3.51	7.90	6.52	4.90	9.38
P Alk as CaCO3, PPM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MO Alk. As CaCOM, PPM	42.64	28.86	48.66	38.48	60.92	70.4	63.08	47.52	61.04	55.10	69.50
Chloride as Cl, PPM	6.36	6.76	6.34	6.47	6.80	6.96	7.08	8.26	8.12	8.20	8.57
Sulfate as SO4, PPM	2.65	2.98	2.3	2.11	1.93	1.71	1.29	4.27	2.35	2.22	1.95
DOC, PPM		5	3.2	3.9	4.3	4.7	5.6	4.6	6.9	4.5	4.3
TOC, PPM	3.5	8.8	3.1	3.8	4.8	4.8	5.2	22.2	4.6	4.3	4.2
Total Copper (SM18 3113B)	3										
Calcium as Ca, PPM	11.30	10.70	12.90	14.00	13.10	13.90	17.20	15.20	16.90	18.20	19.50
Magnesium as Mg, PPM	3.17	3.09	5.31	4.69	4.75	4.76	5.25	4.6	5.13	4.86	4.96

Metals Translator
Sample Results

Sodium as Na, PPM	3.2	2.9	3.5	3.6	3.8	3.7	3.8	3.7	4.1	4.0	4.0
Potassium as K, PPM	1.18	1.9	1.44	1.15	1.4	1.3	1.14	2.22	1.59	1.63	1.71
Dissolved Copper (SM18 3113B)	1.00										
Site Mix (Calculated)	7/8/2009	7/13/2009	7/21/2009	7/28/2009	8/3/2009	8/11/2009	8/17/2009	8/24/2009	9/1/2009	9/14/2009	9/21/2009
DO, mg/l	7.04	6.84	7.57	7.57	7.20	5.50	6.16	7.59	5.89	6.43	6.18
Temp	23.28	24.74	21.65	26.50	25.66	27.51	26.16	25.78	22.04	21.14	20.60
TRC, mg/l	0.01	0.05	0.02	0.01	0.00	0.03	0.00	0.00	0.00	0.00	0.00
Conductivity (uS)	60.79	67.16	65.13	116.10	82.95	87.08	86.53	71.61	105.30	88.01	76.15
pH	6.93	6.95	7.11	7.09	7.18	6.64	6.78	6.89	6.84	6.39	6.85
Hardness	30.23	23.09	26.61	27.98	25.72	29.26	33.72	30.48	32.76	32.91	35.06
TSS, mg/l	18.30	18.93	17.33	20.60	20.19	18.83	13.94	17.53	13.26	12.28	12.46
P Alk as CaCO3, PPM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MO Alk. As CaCOM, PPM	30.75	17.86	34.80	37.11	47.08	36.25	48.83	35.07	38.44	33.30	35.76
Chloride as Cl, PPM	2.57	2.72	2.55	2.58	2.72	2.75	2.98	3.42	3.23	3.29	3.43
Sulfate as SO4, PPM	3.32	5.92	3.93	3.19	2.04	1.40	1.47	3.91	9.60	3.33	1.87
DOC, PPM		4.31	4.01	4.84	5.93	5.89	8.04	7.98	8.65	7.00	5.24
TOC, PPM	4.31	6.49	4.29	4.80	6.61	6.24	7.33	14.51	8.04	9.43	6.20
Total Copper (SM18 3113B)	13.00										
Calcium as Ca, PPM	5.48	5.69	6.29	6.46	5.91	5.93	7.38	7.16	6.95	7.61	7.99
Magnesium as Mg, PPM	1.32	1.37	2.17	1.94	1.90	1.86	2.10	1.86	1.99	1.91	1.97
Sodium as Na, PPM	2.83	3.09	3.50	3.54	4.24	4.76	5.99	8.70	9.48	9.56	6.06
Potassium as K, PPM	0.92	1.45	1.04	0.81	0.91	0.72	0.63	1.66	0.89	0.80	0.77
Site Water Mix (Measured)	7/8/2009	7/13/2009	7/21/2009	7/28/2009	8/3/2009	8/11/2009	8/17/2009	8/24/2009	9/1/2009	9/14/2009	9/21/2009
pH	7.01	6.88	6.62	7.04	6.95	7.00	6.83	7.17	6.32	6.51	6.87
Hardness				28.3	29	27.2	34.9	31.7	34.4	34.0	35.6
TSS, mg/l	18.5	21.7	20.5	21.0	24.3	20.6	16.2	17.9	11.9	13.5	11.6
Total Copper (SM18 3113B)	10	10	9	17	21	17	4	5	27	10	2
Dissolved Copper (SM18 3113B)	2	5	3	6	9	10	3	4	8	5	2
Total Field Blank	2,5	3	7	4	3	9	1	6	15	8	<1
Dissolved Field Blank		2	6	<1	3	8	<1	6	14	9	<1
Total Copper (EPA 200.8)	12.40	12.50	11.00	16.10	15.50	16.20	14.30	21.00	15.60	10.80	6.50
Dissolved Copper (EPA 200.8)	4.61	4.04	4.15	5.58	6.04	6.78	6.75	12.30	7.65	3.63	2.69
Field Blank Total	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Field Blank Disolved	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Average Total Copper	13.81										
Average Disolved Copper	5.84			Mean of 27.6 (ESS) and 28.6 (Dom)			Mean of 7.6 (ESS) and 6.0 (Dom)				

C. Results

Sample Date	SAR (upstream of 001)	Outfall 001	SDW (measured)	SDW (Calculated)
7/8/2009	61.6	11.4	N.D.	30.23
7/13/2009	45.6	9.58	N.D.	23.09
7/21/2009	54.3	10.0	N.D.	26.61
7/28/2009	57.1	10.5	28.3	27.98
8/3/2009	54.1	8.69	29.0	25.72
8/11/2009	66.7	6.8	27.2	29.26
8/17/2009	74.2	9.43	34.9	33.72
8/24/2009	65.4	9.52	31.7	30.48
9/1/2009	79.1	4.95	31.7	32.76
9/14/2009	77.0	6.45	34.0	32.91
9/21/2009	82.4	6.66	35.6	35.06
Hardness Average:	**65.2**	**8.5**	**31.6**	**29.8**

Table 16. Hardness (as mg/l $CaCO_3$) data for upstream SAR, 001 and SDW

11/29/2012 1:34:20 PM

Facility = Dominion - Gordonsville Power Station
Chemical = Chlorine
Chronic averaging period = 4
WLAa = 0.019 mg/l
WLAc = 0.011 mg/l
Q.L. = 0.1 mg/l
# samples/mo. = 1
# samples/wk. = 1

Summary of Statistics:

observations = 1
Expected Value = .2
Variance = .0144
C.V. = 0.6
97th percentile daily values = .486683
97th percentile 4 day average = .332758
97th percentile 30 day average= .241210
< Q.L. = 0
Model used = BPJ Assumptions, type 2 data

A limit is needed based on Chronic Toxicity
Maximum Daily Limit = 1.60883226245855E-02 mg/l
Average Weekly limit = 1.60883226245855E-02 mg/l
Average Monthly LImit = 1.60883226245855E-02 mg/l

The data are:

0.2 mg/l

11/30/2012 8:19:43 AM

Facility = Dominion - Gordonsville Power Station
Chemical = Zinc
Chronic averaging period = 4
WLAa = 64 ug/l
WLAc = 76 ug/l
Q.L. = 2.0 ug/l
# samples/mo. = 1
# samples/wk. = 1

Summary of Statistics:

observations = 1
Expected Value = 150
Variance = 8100
C.V. = 0.6
97th percentile daily values = 365.012
97th percentile 4 day average = 249.568
97th percentile 30 day average= 180.907
< Q.L. = 0
Model used = BPJ Assumptions, type 2 data

A limit is needed based on Acute Toxicity
Maximum Daily Limit = 64 ug/l
Average Weekly limit = 64 ug/l
Average Monthly LImit = 64 ug/l

The data are:

150 ug/l

DEPARTMENT OF ENVIRONMENTAL QUALITY

SUBJECT: Review of Gordonsville Power Station Water Effect Ratio Study

By: Alex M. Barron

Date: January 5, 2011
(Modified from September 9, 2010 memo to reflect EPA's review)

Summary Finding:
Dominion, Electric Environmental Services conducted a streamlined copper water effect ratio (WER) study for the Gordonsville Power Station, in Gordonsville, Virginia. The study followed EPA's guidelines for a streamlined copper WER study under suitable conditions and resulted in establishing a WER of 2.593 to be applied to dissolved copper concentrations. The WER will be used to adjust the copper criteria for copper and calculate the resulting waste load allocations (WLA) for this permit and will be used to make permit decisions for the need for copper discharge limits for the Gordonsville Power Station.

Description of study and review:
The Gordonsville Power Station, in Louisa County Virginia conducted a water effect ratio (WER) study for copper in order to establish a WER that can be applied to the Virginian copper criteria equations to calculate copper criteria that would apply to their permitted discharge, consisting of boiler blowdown water and stormwater.

Virginia's water quality criteria for copper in freshwater consists of formulas to adjust the acute or chronic criteria for hardness using formulas developed and recommended by the U.S. Environmental Protection Agency (EPA). The Virginia criteria formulas include a water effect ratio (WER) which is set at a default value of 1.0 unless a WER study is performed for a specific receiving stream and discharge to establish a WER for that receiving stream. The Gordonsville Power Station conducted the WER study in order to establish a WER applicable to their receiving stream and to their discharge permit.

The Virginia freshwater criteria formulas for copper are shown below.

Freshwater acute criterion (µg /l)

WER x $[e\{0.9422[\ln(\text{hardness})]-1.700\}]$ x (CFa)

Freshwater chronic criterion (µg/l)

WER x $[e\{0.8545[\ln(\text{hardness})]-1.702\}]$ x (CFc)

WER = Water Effect Ratio =1 unless shown otherwise under 9 VAC 25-260-140.F and listed in 9 VAC 25-260-310.

e = natural antilogarithm
ln=natural logarithm
CFa = 0.960
CFc = 0.960

WER Study:
The Gordonsville Power Station conducted a water effect ratio (WER) study for copper in order to establish a WER that can be applied to the Virginian copper criteria equations to calculate copper criteria that would apply to the receiving stream and to their discharge permit. This study followed the EPA guidance for a Streamlined Water-Effect Ratio Procedure for Discharges of Copper EPA-822-R-01-05 (hereafter referred to as the streamlined WER guidance). This guidance document is available at: http://epa.gov/waterscience/criteria/copper/2003/index.htm.

This streamlined WER guidance requires two sets of side-by side WER toxicity tests, conducted at different times at least a month apart and using a representative sample of the effluent and stream water mix at permit conditions. Each WER test consists of two side-by side toxicity tests using added copper to establish the LC_{50} value for copper. One of the tests is conducted in clean laboratory water and another text is conducted in simulated stream water consisting of receiving stream water and effluent mixed at the conditions of the permit. The two LC_{50} values for these two toxicity tests are used to calculate a water effect ratio by dividing the LC_{50} value from the test with the simulated stream-water by the LC_{50} value from the lab-water test.

A review of the streamlined water effect ratio (WER) study for the Gordonsville Power Station indicates that the set of toxicity tests conducted in August 2009 and September were conducted under acceptable conditions and are suitable for establishing a WER for this permitted facility. In all tests, the testing laboratory measured the concentrations of copper in the toxicity tests and calculated LC_{50} values based on both dissolved and total copper measurements. This allowed for the calculation of both dissolved and total copper WERs. Although this report provides data for both dissolved and total recoverable copper concentrations; the primary focus of this WER report is the dissolved copper in order to develop a dissolved WER that can be used to adjust the Virginia criteria, which is expressed as dissolved copper. Additional, permit specific issues are being investigated with separate studies conducted to investigate a chemical translator applicable to this discharge, as well as studies on stream flow and hardness for the receiving stream.

In both sets of tests the LC_{50} values for the lab-water tests were lower than the species mean acute value (SMAV) from other LC_{50} values reported in the literature for the test species *Ceriodaphnia dubia* as reported by EPA in the Streamlined Water-Effect Ratio Procedure for Discharges of Copper. This is not unusual in current toxicity tests with this species because the typical reference laboratory waters used in labs currently are often much "cleaner" (resulting in lower EC50 values) than the reference lab waters used in many of the original tests that form the basis for the criteria. To account for this and

appropriately develop a WER that applies to the original criteria, EPA's streamlined WER guidance requires (on page 13 and Appendix B page 17) that the SMAV reported in the EPA streamlined WER guidance be used to establish the WER for this discharge and receiving stream. Before calculating the WERs, all LC_{50} values from the toxicity tests and SMAVs from the EPA streamlined WER guidance (Appendix B page 17) were normalized to the same hardness level of 40 mg/L as CaCO3 (the hardness that is used for this stream in the permit). The hardness normalization was done using the following formula as described in EPA's streamlined WER guidance (page 13);

LC_{50} at standard hardness =

$LC_{50\ \text{at sample hardness}} \times (\text{standard hardness} / \text{sample hardness})^{0.9422}$

The consultant's report presented the findings by normalizing the original LC50 values to a reference hardness of 40 (representative to the hardness in the various toxicity tests and close to what will be the basis for the permit calculations); however the resulting WERs are the same regardless of the hardness used, as long as all values are normalized to the same hardness level. The original LC_{50} values from the two acceptable tests from August and September 2009, as well as these LC_{50} values after being normalized to the reference hardness of 40 and the resulting WERs are shown in Table 1 attached below. ..

Final WER
The final WER to be used with this permit is the geometric mean of the two dissolved copper WERs established in the study.

The final dissolved copper WER demonstrated by this study is 2.593.

At a hardness of 40 the acute criterion is 5.7 µg/L x (WER) 2.593 = 14.7
This would be rounded to15 µg/L.

DEQ Review and Approval of WER by DEQ:
The Virginia Department of Environmental Quality's Water Quality Standards Unit has reviewed this study and approves the use of a dissolved copper WER of 2.593 to adjust the copper criteria as it applies to the Gordonsville Power Station's permit and receiving stream, the South Anna River. This dissolved copper WER of 2.593 will be used to adjust the copper criteria and calculate the resulting waste load allocations (WLA) for this permit and will be used to make permit decisions for the need for copper discharge limits for the Gordonsville Power Station.

WER review by EPA and application in permits procedure:

DEQ submitted the results of the WER study to the U.S. Environmental Protection Agency (EPA) for their review. EPA concluded that they believe that the WER study demonstrating a WER of 2.593 applied to dissolved copper measurements could provide a sound scientific rational to support the copper site-specific WER as applied to the

Gordonsville Power station NPDES permit. EPA's review of the WER study is subject to any new information that may arise through the public notice process.

The Virginia water Quality Standards (WQS) allow for a permittee to demonstrate that a WER is appropriate for their discharge and receiving stream. The WQS states that the WER shall be described in the public notice of the permit proceedings. DEQ action to approve or disapprove a WER applicable to a permittee is a case decision rather than an amendment to the WQS. Decisions regarding WERs are subject to the public participation requirements of the Permit Regulation.

The WER-modified copper criteria can be subjected to public participations via a permit related comment period, either via a permit re-issuance or permit modification.

Table 1;

Summary of all LC_{50} values from the Gordonsville Power Station WER studies; showing original values normalized to a standard hardness of 40 (i.e. at permit condition hardness)

Test Description	**LC_{50} (dissolved)**	**LC50 (total recoverable)**	**LC50 (dissolved) (Normalized to hardness 40 mg/L)**	**LC50 (total) (Normalized to 40 hardness mg/L)**
August 19-21, 2009; **Lab water** (hardness 42 mg/L)	2.574 µg/L	3.773 µg/L	2.458 µg/L	3.603µg/L
August 19-21, 2009; (hardness 42 mg/L) **simulated stream water**	38.18 µg/L	75.17µg/L	**36.46 µg/L**	**71.79 µg/L**
September 23-25, 2009; **Lab water** (hardness = 42)	1.897 µg/L	2.477 µg/L	1.812 µg/L	2.366 µg/L
September 23-25, 2009; (hardness =38) **simulated stream water**	15.28 µg/L	28.43 µg/L	**16.04 µg/L**	**29.84 µg/L**
Species Mean Acute Value (SMAV) (see EPA Cu-WER Guidance, page 17)	**Dissolved Cu SMAV @ 100 hardness**	**Total Cu SMAV @ 100 hardness**	**Dissolved Cu SMAV (Normalized to hardness of 40 mg/L)**	**Total Cu SMAV @ (Normalized to hardness of 40 mg/L)**
Ceriodaphnia. dubia **SMAV at hardness = 100: (see EPA Cu-WER Guidance, page 17)**	22.11 µg/L	24.00 µg/L	**9.325 µg/L**	**10.12 µg/L**
WERs:	**Dissolved Cu WER**	**Total Cu WER**		
August 2009 WER (using SMAV normalized to hardness @ 40 mg/L)	36.46 / 9.325 = **3.910**	71.79 / 10.12 = 7.094		
September 2009 WER (using SMAV normalized to hardness @ 40 mg/L)	16.04 / 9.325 = **1.720**	29.84 / 10.12 = 2.949		
	Final WER (dissolved)	**Final WER (total)**		
<u>Final WER</u> **(geometric mean of August and September WERs)**	**2.593** **(dissolved copper)**	**4.574** **(total copper)**		

MEMORANDUM

Virginia Department of Environmental Quality
Office Water Quality Monitoring and Assessment

629 East Main Street, 11th Floor
Post Office Box 1105[illegible]
Richmond, Virginia 23240-0009[illegible]
804.698.4449[illegible]
804.698.4116 fax

SUBJECT: Dominion Power Gordonsville Power Station Chemical Translator Project

TO: Susan Mackert

FROM: R.E. Stewart RESTEWART

DATE: Monday, November 29, 2010

COPIES: Darryl Glover, Alex Barron, Bryant Thomas

The Gordonsville Power Station Chemical Translator Project as submitted to the Department is a study conducted by Dominion Power and subcontractors to determine the ratio of instream dissolved Copper to total recoverable Copper. Copper in the dissolved form is considered bioavailable to aquatic organisms and its concentration is limited by the Department's Water Quality Standards, 9 VAC 25-260 - Virginia Water Quality Standards. Total Copper (total recoverable) may contain species of Copper that are not dissolved and therefore considered not bioavailable. By determining the ratio of dissolved to total Copper effluent permit limits may be adjusted to account for only the dissolved fraction of Copper entering the receiving stream.

The Project as presented to the Department on 14 May 2010 is well prepared and thorough and if implemented as described will produce data that are acceptable to the Department. The study results and conclusions for the derivation of a chemical translator value for Copper are well prepared and indicate high quality data. The final chemical translator, f_D, value of 0.4052 is acceptable for the application of adjusting a final effluent permit limit for Copper.

The chemical translator Project was reviewed and deemed acceptable on 7 September 2010.

Public Notice – Environmental Permit

PURPOSE OF NOTICE: To seek public comment on a draft permit from the Department of Environmental Quality that will allow the release of treated industrial wastewater and storm water into a water body in Louisa County, Virginia.

PUBLIC COMMENT PERIOD: February 15, 2013 to March 18, 2013

PERMIT NAME: Virginia Pollutant Discharge Elimination System Permit – Industrial Wastewater and Storm Water issued by DEQ, under the authority of the State Water Control Board

APPLICANT NAME, ADDRESS AND PERMIT NUMBER: Virginia Electric and Power Company, 5000 Dominion Boulevard, Glen Allen, VA 23060, VA0087033

NAME AND ADDRESS OF FACILITY: Dominion – Gordonsville Power Station, 819 Hill Road, Gordonsville, VA 22942

PROJECT DESCRIPTION: Virginia Electric and Power Company has applied for a reissuance of a permit for the private Dominion – Gordonsville Power Station. The applicant proposes to release treated industrial wastewater and storm water at a rate of 0.049 million gallons per day into a water body. The facility proposes to release the treated industrial wastewater and storm water in the South Anna River in Louisa County in the York River watershed. A watershed is the land area drained by a river and its incoming streams. The permit will limit the following pollutants to amounts that protect water quality: pH, Dissolved Oxygen, Temperature, Total Residual Chlorine, Total Suspended Solids, and Oil and Grease. The permit will monitor the following pollutants to protect water quality: Total Dissolved Copper, Total Dissolved Zinc, Total Petroleum Hydrocarbons, Hardness, and Acute Toxicity.

HOW TO COMMENT AND/OR REQUEST A PUBLIC HEARING: DEQ accepts comments and requests for public hearing by hand-delivery, e-mail, fax or postal mail. All comments and requests must be in writing and be received by DEQ during the comment period. Submittals must include the names, mailing addresses and telephone numbers of the commenter/requester and of all persons represented by the commenter/requester. A request for public hearing must also include: 1) The reason why a public hearing is requested. 2) A brief, informal statement regarding the nature and extent of the interest of the requester or of those represented by the requester, including how and to what extent such interest would be directly and adversely affected by the permit. 3) Specific references, where possible, to terms and conditions of the permit with suggested revisions. A public hearing may be held, including another comment period, if public response is significant, based on individual requests for a public hearing, and there are substantial, disputed issues relevant to the permit.

CONTACT FOR PUBLIC COMMENTS, DOCUMENT REQUESTS AND ADDITIONAL INFORMATION: The public may review the documents at the DEQ-Northern Regional Office by appointment, or may request electronic copies of the draft permit and fact sheet.
Name: Susan Mackert
Address: DEQ-Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193
Phone: (703) 583-3853 E-mail: susan.mackert@deq.virginia.gov Fax: (703) 583-3821

Revised 2/2003

State "Transmittal Checklist" to Assist in Targeting
Municipal and Industrial Individual NPDES Draft Permits for Review

Part I. State Draft Permit Submission Checklist

In accordance with the MOA established between the Commonwealth of Virginia and the United States Environmental Protection Agency, Region III, the Commonwealth submits the following draft National Pollutant Discharge Elimination System (NPDES) permit for Agency review and concurrence.

Facility Name:	Dominion – Gordonsville Power Station
NPDES Permit Number:	VA0087033
Permit Writer Name:	Susan Mackert
Date:	October 31, 2012

Major [ ] **Minor [X]** **Industrial [X]** **Municipal [ ]**

I.A. Draft Permit Package Submittal Includes:	**Yes**	**No**	**N/A**
1. Permit Application?	X		
2. Complete Draft Permit (for renewal or first time permit – entire permit, including boilerplate information)?	X		
3. Copy of Public Notice?	X		
4. Complete Fact Sheet?	X		
5. A Priority Pollutant Screening to determine parameters of concern?	X		
6. A Reasonable Potential analysis showing calculated WQBELs?	X		
7. Dissolved Oxygen calculations?			X
8. Whole Effluent Toxicity Test summary and analysis?		X	
9. Permit Rating Sheet for new or modified industrial facilities?	X		

I.B. Permit/Facility Characteristics	**Yes**	**No**	**N/A**
1. Is this a new, or currently unpermitted facility?		X	
2. Are all permissible outfalls (including combined sewer overflow points, non-process water and storm water) from the facility properly identified and authorized in the permit?	X		
3. Does the fact sheet **or** permit contain a description of the wastewater treatment process?	X		
4. Does the review of PCS/DMR data for at least the last 3 years indicate significant non-compliance with the existing permit?		X	
5. Has there been any change in streamflow characteristics since the last permit was developed?		X	
6. Does the permit allow the discharge of new or increased loadings of any pollutants?		X	
7. Does the fact sheet **or** permit provide a description of the receiving water body(s) to which the facility discharges, including information on low/critical flow conditions and designated/existing uses?	X		
8. Does the facility discharge to a 303(d) listed water?	X		
a. Has a TMDL been developed and approved by EPA for the impaired water?	X		
b. Does the record indicate that the TMDL development is on the State priority list and will most likely be developed within the life of the permit?			X
c. Does the facility discharge a pollutant of concern identified in the TMDL or 303(d) listed water?		X	
9. Have any limits been removed, or are any limits less stringent, than those in the current permit?		X	

I.B. Permit/Facility Characteristics – cont.	Yes	No	N/A
10. Does the permit authorize discharges of storm water?	X		
11. Has the facility substantially enlarged or altered its operation or substantially increased its flow or production?		X	
12. Are there any production-based, technology-based effluent limits in the permit?	X		
13. Do any water quality-based effluent limit calculations differ from the State's standard policies or procedures?		X	
14. Are any WQBELs based on an interpretation of narrative criteria?		X	
15. Does the permit incorporate any variances or other exceptions to the State's standards or regulations?		X	
16. Does the permit contain a compliance schedule for any limit or condition?		X	
17. Is there a potential impact to endangered/threatened species or their habitat by the facility's discharge(s)?		X	
18. Have impacts from the discharge(s) at downstream potable water supplies been evaluated?	X		
19. Is there any indication that there is significant public interest in the permit action proposed for this facility?		X	
20. Have previous permit, application, and fact sheet been examined?	X		

Part II. NPDES Draft Permit Checklist

Region III NPDES Permit Quality Review Checklist – For Non-Municipals

II.A. Permit Cover Page/Administration	Yes	No	N/A
1. Does the fact sheet or permit describe the physical location of the facility, including latitude and longitude (not necessarily on permit cover page)?	X		
2. Does the permit contain specific authorization-to-discharge information (from where to where, by whom)?	X		

II.B. Effluent Limits – General Elements	Yes	No	N/A
1. Does the fact sheet describe the basis of final limits in the permit (e.g., that a comparison of technology and water quality-based limits was performed, and the most stringent limit selected)?	X		
2. Does the fact sheet discuss whether "antibacksliding" provisions were met for any limits that are less stringent than those in the previous NPDES permit?	X		

II.C. Technology-Based Effluent Limits (Effluent Guidelines & BPJ)	Yes	No	N/A
1. Is the facility subject to a national effluent limitations guideline (ELG)?	X		
a. If yes, does the record adequately document the categorization process, including an evaluation of whether the facility is a new source or an existing source?	X		
b. If no, does the record indicate that a technology-based analysis based on Best Professional Judgement (BPJ) was used for all pollutants of concern discharged at treatable concentrations?			X
2. For all limits developed based on BPJ, does the record indicate that the limits are consistent with the criteria established at 40 CFR 125.3(d)?	X		
3. Does the fact sheet adequately document the calculations used to develop both ELG and /or BPJ technology-based effluent limits?	X		
4. For all limits that are based on production or flow, does the record indicate that the calculations are based on a "reasonable measure of ACTUAL production" for the facility (not design)?	X		
5. Does the permit contain "tiered" limits that reflect projected increases in production or flow?		X	
a. If yes, does the permit require the facility to notify the permitting authority when alternate levels of production or flow are attained?			X
6. Are technology-based permit limits expressed in appropriate units of measure (e.g., concentration, mass, SU)?	X		
7. Are all technology-based limits expressed in terms of both maximum daily, weekly average, and/or monthly average limits?	X		
8. Are any final limits less stringent than required by applicable effluent limitations guidelines or BPJ?		X	

II.D. Water Quality-Based Effluent Limits	Yes	No	N/A
1. Does the permit include appropriate limitations consistent with 40 CFR 122.44(d) covering State narrative and numeric criteria for water quality?	X		
2. Does the record indicate that any WQBELs were derived from a completed and EPA approved TMDL?		X	
3. Does the fact sheet provide effluent characteristics for each outfall?	X		
4. Does the fact sheet document that a "reasonable potential" evaluation was performed?	X		
a. If yes, does the fact sheet indicate that the "reasonable potential" evaluation was performed in accordance with the State's approved procedures?	X		
b. Does the fact sheet describe the basis for allowing or disallowing in-stream dilution or a mixing zone?	X		

II.D. Water Quality-Based Effluent Limits – cont.	Yes	No	N/A
c. Does the fact sheet present WLA calculation procedures for all pollutants that were found to have "reasonable potential"?	X		
d. Does the fact sheet indicate that the "reasonable potential" and WLA calculations accounted for contributions from upstream sources (i.e., do calculations include ambient/background concentrations where data are available)?	X		
e. Does the permit contain numeric effluent limits for all pollutants for which "reasonable potential" was determined?	X		
5. Are all final WQBELs in the permit consistent with the justification and/or documentation provided in the fact sheet?	X		
6. For all final WQBELs, are BOTH long-term (e.g., average monthly) AND short-term (e.g., maximum daily, weekly average, instantaneous) effluent limits established?	X		
7. Are WQBELs expressed in the permit using appropriate units of measure (e.g., mass, concentration)?	X		
8. Does the fact sheet indicate that an "antidegradation" review was performed in accordance with the State's approved antidegradation policy?	X		

II.E. Monitoring and Reporting Requirements	Yes	No	N/A
1. Does the permit require at least annual monitoring for all limited parameters?	X		
a. If no, does the fact sheet indicate that the facility applied for and was granted a monitoring waiver, AND, does the permit specifically incorporate this waiver?			X
2. Does the permit identify the physical location where monitoring is to be performed for each outfall?	X		
3. Does the permit require testing for Whole Effluent Toxicity in accordance with the State's standard practices?	X		

II.F. Special Conditions	Yes	No	N/A
1. Does the permit require development and implementation of a Best Management Practices (BMP) plan or site-specific BMPs?		X	
a. If yes, does the permit adequately incorporate and require compliance with the BMPs?			X
2. If the permit contains compliance schedule(s), are they consistent with statutory and regulatory deadlines and requirements?			X
3. Are other special conditions (e.g., ambient sampling, mixing studies, TIE/TRE, BMPs, special studies) consistent with CWA and NPDES regulations?	X		

II.G. Standard Conditions	Yes	No	N/A
1. Does the **permit** contain all 40 CFR 122.41 standard conditions or the State equivalent (or more stringent) conditions?	X		

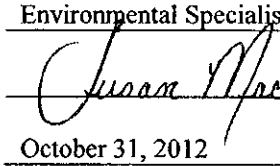
List of Standard Conditions – 40 CFR 122.41

Duty to comply	Property rights	Reporting Requirements
Duty to reapply	Duty to provide information	Planned change
Need to halt or reduce activity	Inspections and entry	Anticipated noncompliance
not a defense	Monitoring and records	Transfers
Duty to mitigate	Signatory requirement	Monitoring reports
Proper O & M	Bypass	Compliance schedules
Permit actions	Upset	24-Hour reporting
		Other non-compliance

2. Does the permit contain the additional standard condition (or the State equivalent or more stringent conditions) for existing non-municipal dischargers regarding pollutant notification levels [40 CFR 122.42(a)]?	X		

Part III. Signature Page

Based on a review of the data and other information submitted by the permit applicant, and the draft permit and other administrative records generated by the Department/Division and/or made available to the Department/Division, the information provided on this checklist is accurate and complete, to the best of my knowledge.

Name	Susan Mackert
Title	Environmental Specialist II, Senior II
Signature	
Date	October 31, 2012